

# Status update of the U.S. canary rockfish resource in 2011

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## **Executive Summary**

### ***Stock***

This updated assessment reports the status of the canary rockfish (*Sebastodes pinniger*) resource off the coast of the United States from southern California to the U.S.-Canadian border using data through 2010. As in 2007 and 2009, the resource is modeled as a single stock.

### ***Catches***

Historical (pre-1981) catches of canary rockfish catch were reconstructed for the 2009 assessment and resulted in substantial reductions compared to what was used in the 2007 assessment (Figure a). Since the 2009 assessment, Oregon's commercial landings prior to 1986 have been reconstructed and those data are included in this updated assessment. The revised Oregon landings are higher in most of the years between 1941 and 1986. The net result of this revision is that the total estimated catch, from 1916 to 1986, is 36.5% higher than in 2009, and only 4.3% lower than in 2007.

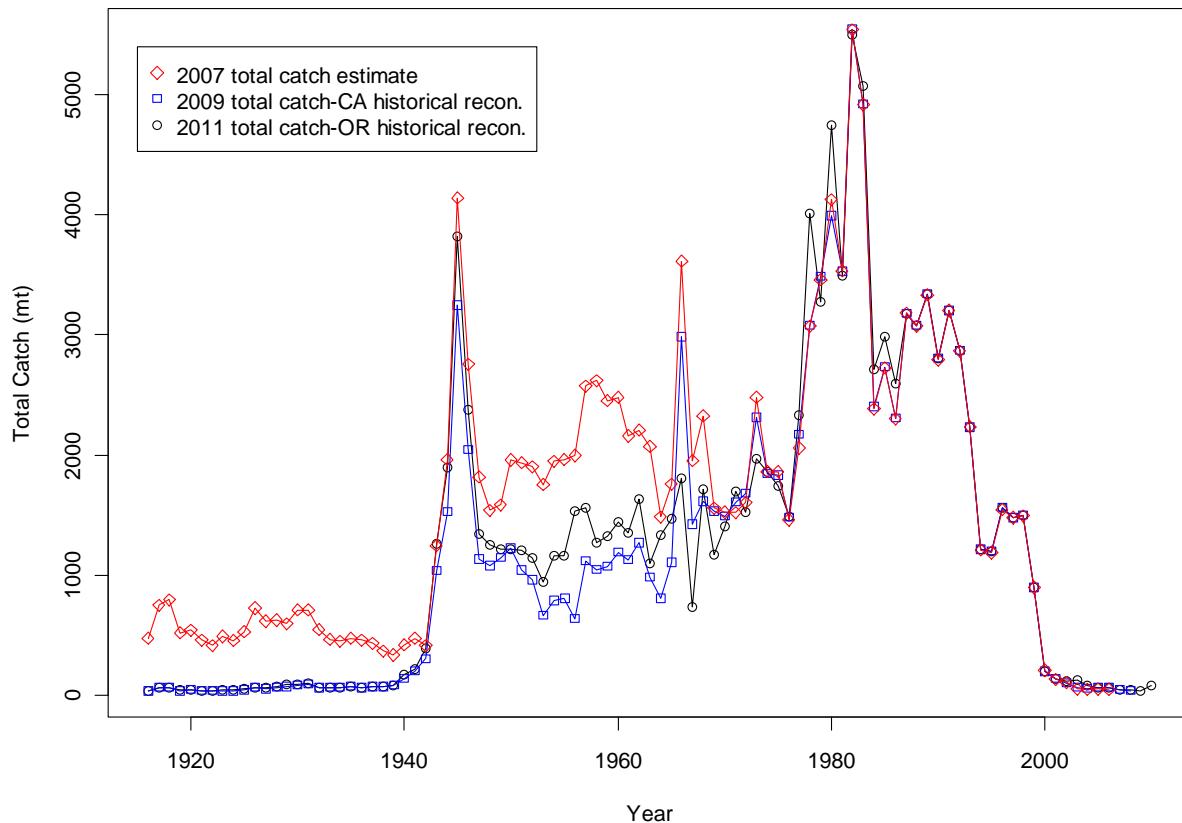


Figure a. Comparison of canary rockfish total catch included in assessments conducted in 2007, 2009 (including the reconstruction of California landings), and in 2011 (including the recent reconstruction of Oregon landings).

Recent canary rockfish catches were revised based on current total mortality estimates (2002-2009) and the GMT scorecard (2010). In cases where only aggregated catches were available, they were pro-rated to modeled fleets as was done in the 2007 and 2009 assessments.

Table a. Recent canary rockfish catches (mt).

Year	Commercial	Commercial	At-sea		
	trawl	non-trawl	whiting bycatch	Recreational	Research
2001	63.09	17.58	4.05	46.71	1.61
2002	92.02	5.82	5.24	17.34	0.13
2003	94.09	1.19	0.93	30.21	1.08
2004	55.62	5.61	5.22	16.35	2.24
2005	41.27	1.46	1.44	10.31	4.54
2006	28.18	0.92	1.09	22.01	7.78
2007	26.63	0.33	2.00	14.69	2.50
2008	18.45	4.28	5.96	10.28	2.90
2009	14.26	3.46	5.05	14.70	0.50
2010	20.78	10.20	5.22	43.80	1.82

### ***Data and Assessment***

This updated assessment used the newest version of Stock Synthesis available (3.21a, released 23 April 2011). Change in assessment results from 2009 due to Synthesis updates was negligible. The model data sources are unchanged, including updated catch, length- and age-frequency data from 11 fishing fleets. Biological data is derived from both port and on-board observer sampling programs. The National Marine Fisheries Service (NMFS) Northwest Fisheries Science Center (NWFSC) bottom trawl survey's relative biomass indices and biological sampling provide updated fishery independent information on relative trend and demographics of the canary rockfish stock. The Southwest Fisheries Science Center (SWFSC)/NWFSC/Pacific Whiting Conservation Cooperative (PWCC) coast-wide pre-recruit survey provides an updated indicator of recent recruitment strength. The use of time-varying selectivity (for commercial fisheries) and catchability (Triennial bottom trawl survey) is unchanged from the 2007 and 2009 assessments.

As in 2007 and 2009, the base-case assessment model includes parameter uncertainty from a variety of sources but underestimates the considerable uncertainty in recent trend and current stock status. For this reason, in addition to asymptotic confidence intervals (based upon the model's analytical estimate of the variance near the converged solution), two alternate states of nature regarding stock productivity (expressed via the steepness parameter of the stock-recruitment relationship) are presented. The base-case model (steepness = 0.51) is considered to be twice as likely as the two alternate states (steepness = 0.35, 0.72), based on the results of a 2007 meta-analysis of west coast rockfish (M. Dorn, personal communication). In order to best capture this source of uncertainty, all three states of nature will again be used as probability-weighted input to the rebuilding analysis.

### **Stock biomass**

Based on the revised catch series, canary rockfish were very lightly exploited until the early 1940's, when catches increased and a decline in biomass began. The spawning biomass experienced an accelerated rate of decline during the late 1970s, and finally reached a minimum (10.8% of unexploited, below the estimate of 12% from the 2009 assessment) in the mid-1990s. Current depletion is estimated to have increased by over 50% since 2002. The canary rockfish spawning stock biomass is estimated to have been gradually increasing since that time, in response to reductions in harvest and above average recruitment in the preceding decade. However, this trend is very uncertain.

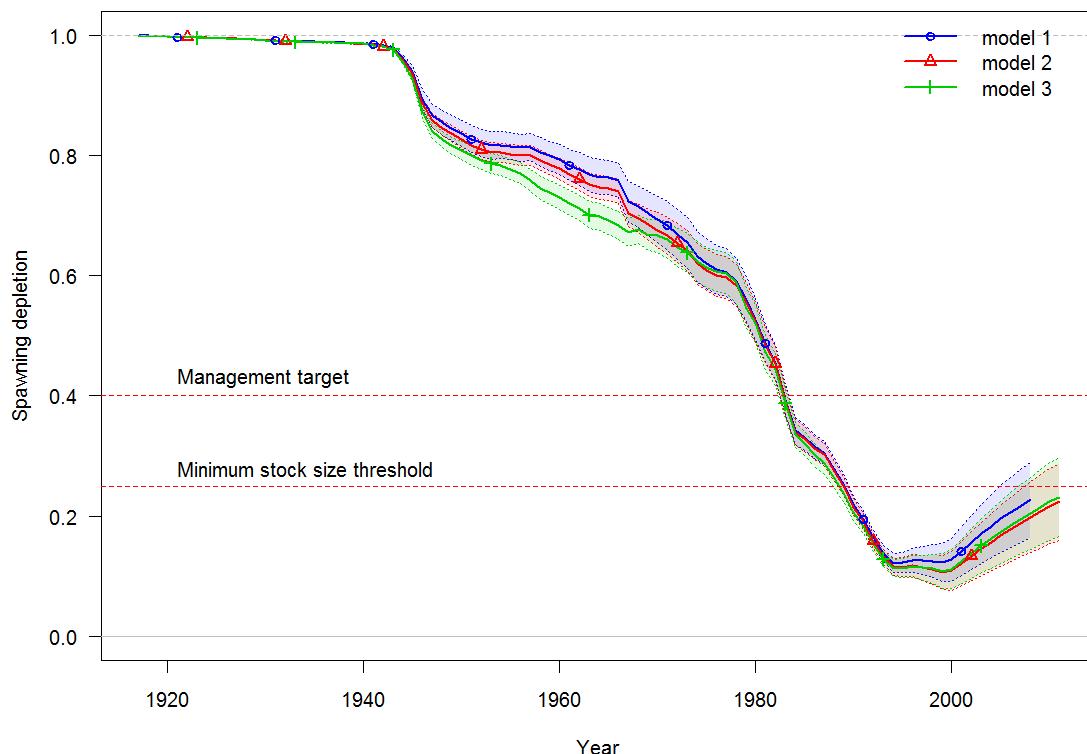


Figure b. Estimated spawning biomass time-series (1916-2008) for the 2009 assessment base-case model (model 1) with approximate asymptotic 95% confidence interval (dashed lines), the 2011 base model without the Oregon historical catch reconstruction (model 2) and the 2011 base-case model (model 3).

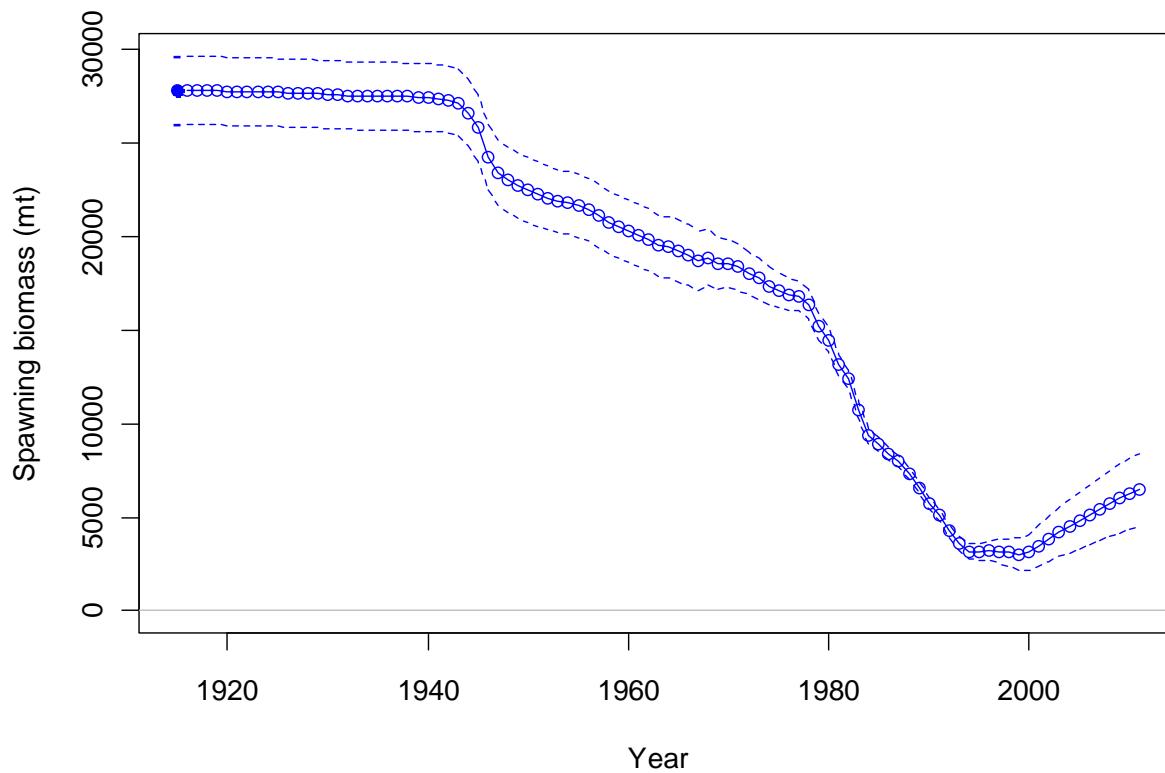


Figure c. Estimated spawning biomass time-series (1916-2011) for the base-case model (circles) with approximate asymptotic 95% confidence interval (dashed lines).

Table b. Recent trend in estimated canary rockfish spawning biomass and relative depletion level.

Year	Spawning biomass (mt)	~95% confidence interval	Recruitment (1000's)	~95% confidence interval	Estimated depletion	~95% confidence interval
2002	3,849	2,648-5,049	990	587-1,394	0.138	0.10-0.18
2003	4,196	2,882-5,510	1,348	850-1,845	0.151	0.11-0.20
2004	4,520	3,100-5,940	469	241-697	0.162	0.11-0.21
2005	4,834	3,317-6,350	356	143-569	0.174	0.12-0.23
2006	5,138	3,533-6,744	820	392-1,248	0.185	0.13-0.24
2007	5,431	3,744-7,119	2,201	1,186-3,217	0.195	0.14-0.25
2008	5,720	3,954-7,485	656	162-1,151	0.205	0.15-0.27
2009	5,997	4,159-7,834	2,237	608-3,867	0.215	0.15-0.28
2010	6,254	4,352-8,155	1,036	45-2,027	0.225	0.16-0.29
2011	6,458	4,506-8,411	1,869	0-3,743	0.232	0.17-0.30

### **Recruitment**

The degree to which canary rockfish recruitment declined over the last 50 years is closely related to the level of productivity (stock-recruit steepness) modeled for the stock. High steepness values imply little relationship between spawning stock and recruitment, while low

steepness values indicate a strong positive correlation. After a period of above-average recruitments, recent year-class strengths (1997-2010) have generally been low, with only 2 of the 10 years (2001 and 2007) producing large estimated recruitments (the 2011 recruitment is based only on the stock-recruit function). The strength of the 2007 year-class is subject to greater uncertainty than other strong recruitment events in the last 30 years because of the limited number of years in which it has been observed. As the larger recruitments from the late 1980s and early 1990s move through the population in future projections, the effects of recent poor recruitment may tend to slow the rate of recovery.

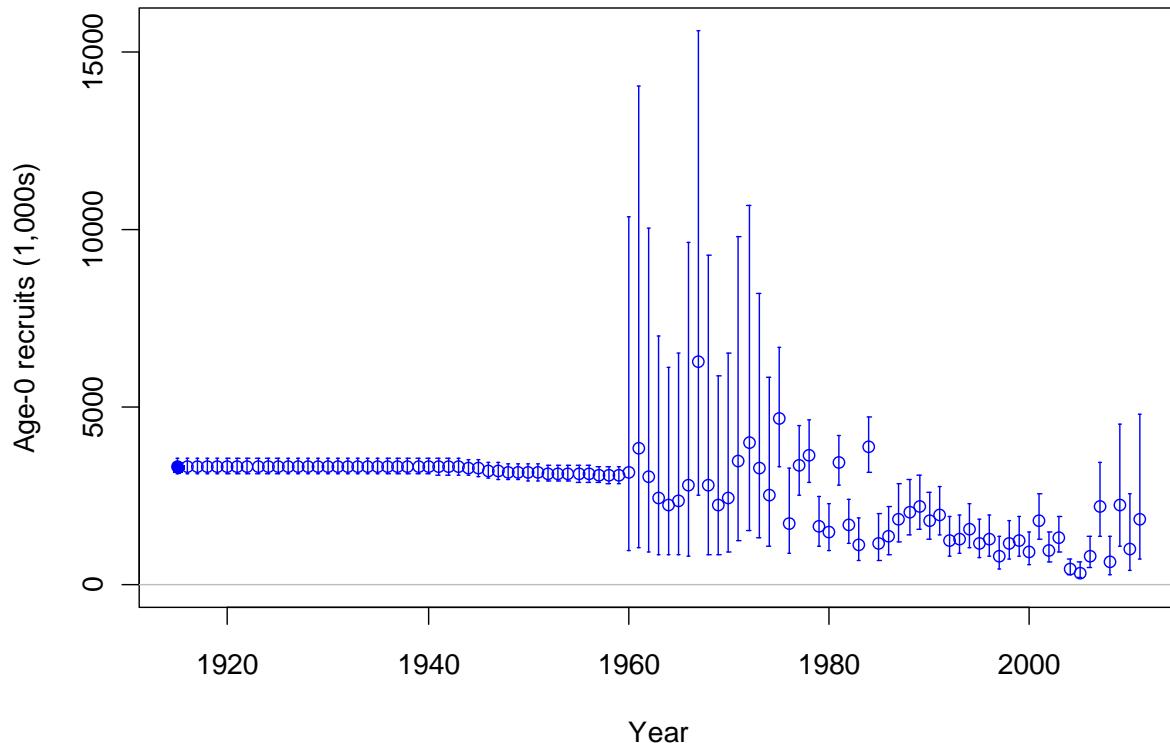


Figure d. Time series of estimated canary rockfish recruitments for the base-case model (circles) with approximate asymptotic 95% confidence interval.

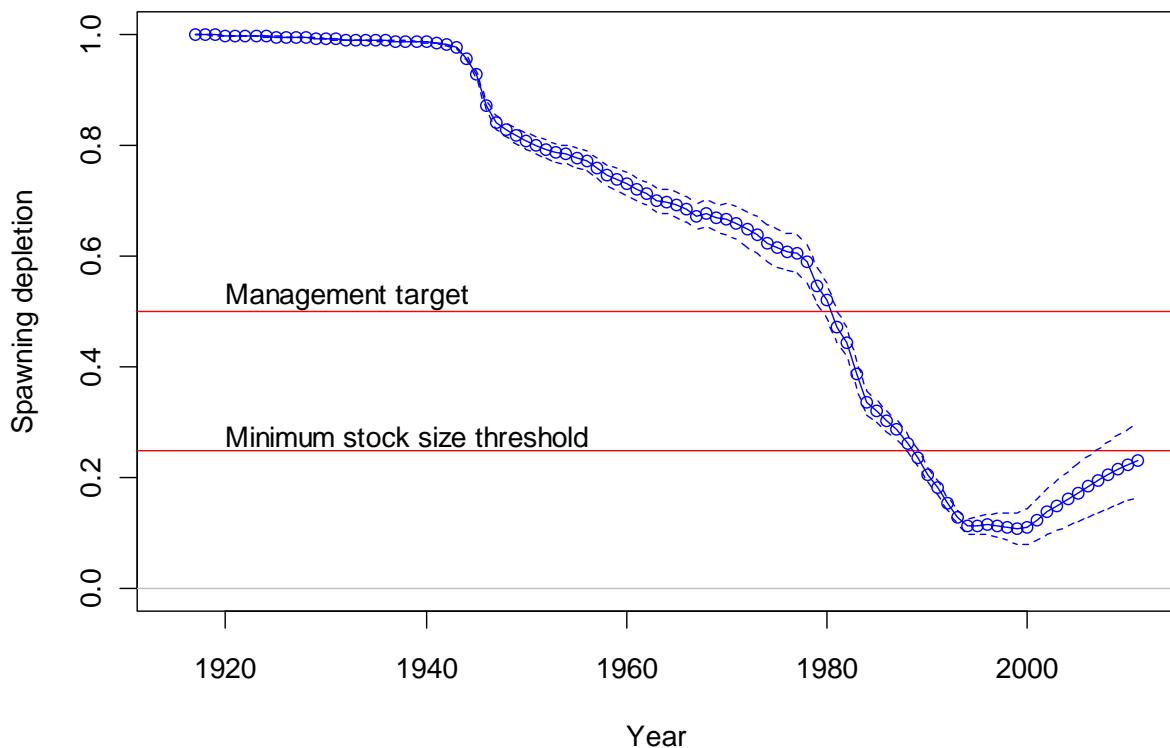


Figure e. Time series of depletion level as estimated in the base-case model (circles) with approximate asymptotic 95% confidence interval (dashed lines).

### **Reference points**

Unfished spawning stock biomass, in the base-case model, was estimated to be 27,846 mt (7% higher than the 2009 estimate of 25,993, and 14.5% lower than the 2007 estimate of 32,561 mt). The target stock size ( $SB_{40\%}$ ) is therefore 11,138 mt and the overfished threshold ( $SB_{25\%}$ ) is 6,962 mt. Maximum sustained yield (MSY) applying current fishery selectivity and allocations (a ‘bycatch-only’ scenario) was estimated in the assessment model to occur at a spawning stock biomass of 10,464 mt and produce an MSY catch of 803 mt (down from the 960 mt estimate in the 2009 update). This sustainable yield is achieved at an SPR of 52.5%, nearly identical to the estimate from the 2007 assessment (52.9%). This is nearly identical to the yield, 801 mt, generated by the SPR (54.0%) that stabilizes the stock at the  $SB_{40\%}$  target. The fishing mortality target/overfishing level (SPR = 50.0%) generates a yield of 799 mt at a stock size of 9,545 mt.

### **Exploitation status**

The abundance of canary rockfish was estimated to have dropped below the  $SB_{40\%}$  management target in 1983 and the overfished threshold in 1990. In hindsight, the spawning stock biomass passed through the target and threshold levels at a time when the annual catch was averaging more than twice the current estimate of the MSY. The stock remains slightly below the overfished threshold (unlike the 2007 estimate), although the spawning stock biomass still appears to have been steadily increasing since 1999. The degree of increase is very sensitive to the value for steepness (which is included in the decision table as a state of nature), and is projected to slow as recent, and largely below average recruitments, begin to contribute to the spawning biomass. Fishing mortality rates in excess of the current F-target for rockfish of

$SPR_{50\%}$  are estimated to have begun in the late 1970s and persisted through 1999. Recent management actions appear to have curtailed the rate of removal such that overfishing has not occurred since before 1999, and relative exploitation rates (catch/biomass of age-5 and older fish) are estimated to have been less than 1% since 2001. These patterns are largely insensitive to the three states of nature.

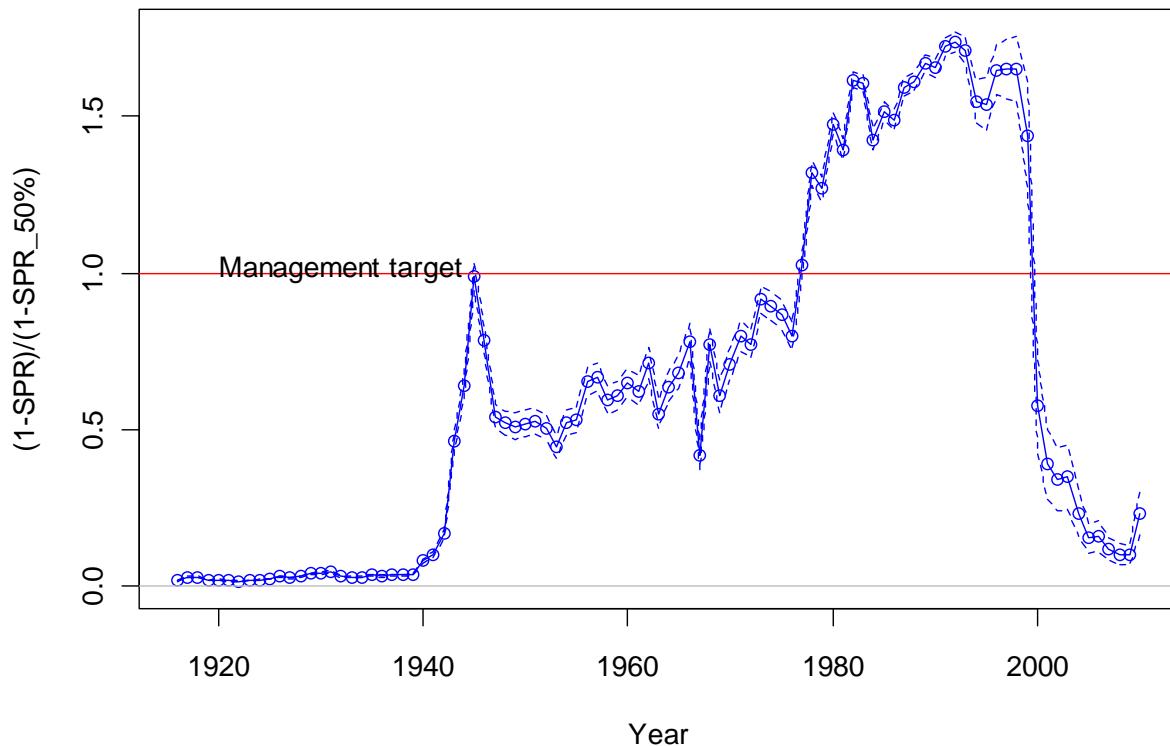


Figure f. Time series of relative spawning potential ratio ( $1-SPR/1-SPR_{Target=0.5}$ ) for the base-case model. Values of relative SPR above 1 reflect harvests in excess of the current overfishing proxy.

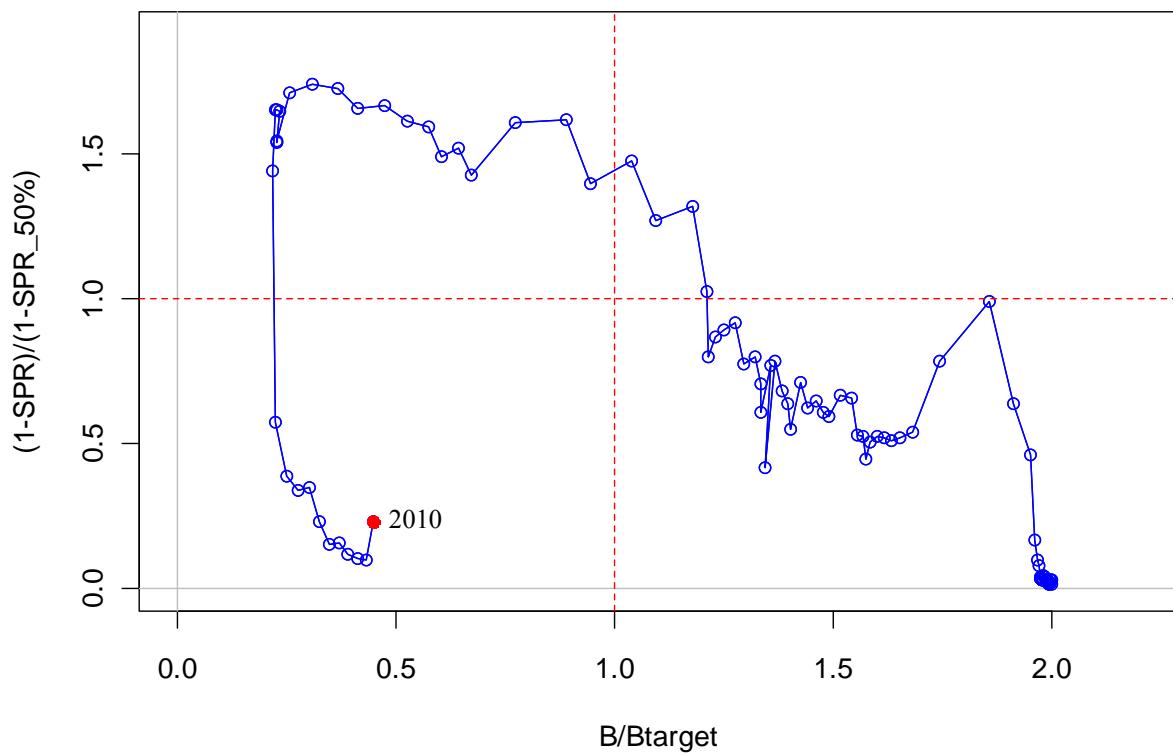


Figure g. Estimated relative spawning potential ratio relative to the proxy target/limit of 50% vs. estimated spawning biomass relative to the proxy 40% level from the base-case model. Higher biomass occurs on the right side of the x-axis, higher exploitation rates occur on the upper side of the y-axis.

#### ***Management performance***

Following the 1999 declaration that the canary rockfish stock was overfished, the canary OY was reduced by over 70% in 2000 and by the same margin again over the next three years. Managers employed several tools in an effort to constrain catches to these dramatically lower targets including reductions in trip/bag limits for canary and co-occurring species, implementing spatial closures, and new gear restrictions intended to reduce trawling in rocky shelf habitats and the coincident catch of rockfish in shelf flatfish trawls.

Table c. Recent trend in estimated total canary rockfish catch and commercial landings (mt) relative to management guidelines.

Year	ABC (mt) <sup>3</sup>	OY (mt) <sup>3</sup>	Commercial landings (mt) <sup>1</sup>	Total Catch (mt)
1999	1,045 <sup>2</sup>	857 <sup>2</sup>	666.3	898.7
2000	287	200	55.7	199.8
2001	228	93	42.6	133.0
2002	228	93	69.9	120.5
2003	272	44	75.8	127.5
2004	256	47.3	49.3	85.0
2005	270	46.8	10.9	59.0
2006	279	47	7.7	60.0
2007	172	44	12.1	46.2
2008	179	44	8.2	41.9
2009	937	105	11.7	38.0
2010	940	105	14.3	81.8

<sup>1</sup> Excludes all at-sea whiting, recreational and research catches.

<sup>2</sup> Includes the Columbia and Vancouver INPFC areas only.

<sup>3</sup> The terms ABC and OY from this period have been replaced by OFL and ACL, respectively.

### ***Unresolved problems and major uncertainties***

As in the 2007 and 2009 assessments, parameter uncertainty is explicitly captured in the asymptotic confidence intervals reported throughout this assessment for key parameters and management quantities. These intervals reflect the uncertainty in the model fit to the data sources included in the assessment, but do not include uncertainty associated with alternative model configurations, weighting of data sources (a combination of input sample sizes and relative weighting of likelihood components), or fixed parameters. Specifically, there appears to be conflicting information between the length- and age-frequency data regarding the degree of stock decline, making the model results sensitive to the relative weighting of each. This issue was not revisited as part of the update. The relationship between the degree of domed shape in the selectivity curves and the increase in female natural mortality with age remains a source of uncertainty that is included in model results, as it has been in previous assessments for canary rockfish. Uncertainty in the steepness parameter of the stock-recruitment relationship is significant and will likely persist in future assessments; this uncertainty is included in the assessment and rebuilding projections through explicit consideration of the three states of nature. Given the change in this update caused by the revised historical Oregon catch estimates, future assessments are likely to be sensitive to additional revised estimates from ongoing efforts in Washington state should they prove appreciably different from the time-series used here.

### ***Forecasts***

The forecasts reported here are intended to illustrate harvest options for management consideration until the full rebuilding analysis is complete. In the interim, the total catch in 2011 and 2012 are set equal to the ACL of 102 and 107, respectively. The exploitation rate for 2013 and beyond is based upon an SPR of 88.7%, which is the rebuilding SPR target identified in the 2009 rebuilding strategy.

As in 2007 and 2009, uncertainty in the rebuilding forecast will be based upon the three states of nature for steepness and random variability in future recruitment deviations for each rebuilding simulation. Current medium-term forecasts predict slow increases in abundance and available catch, with ACL values for 2013 and 2014 slightly larger than those predicted from the 2009 assessment. The following table shows the projection of expected canary rockfish catch, spawning biomass and depletion.

Table d. Projection of potential canary rockfish OFL, ACL, spawning biomass and depletion for the base-case model based on the SPR = 0.887 fishing mortality target used for the last rebuilding plan (ACL) and  $F_{50\%}$  overfishing limit/target (OFL). Assuming the ACL of 102 and 107 mt are respectively achieved exactly in 2011 and 2012.

Year	OFL <sup>1</sup> (mt)	ACL <sup>1</sup> (mt)	Age 5+ biomass (mt)	Spawning biomass (mt)	Depletion
2011	471	102	15,444	6,458	23.2%
2012	495	107	16,036	6,608	23.7%
2013	526	90	16,233	6,722	24.1%
2014	540	95	16,898	6,838	24.6%
2015	551	100	17,282	6,964	25.0%
2016	565	105	17,895	7,114	25.5%
2017	582	110	18,565	7,295	26.2%
2018	598	115	19,286	7,510	27.0%
2019	612	120	20,050	7,760	27.9%
2020	623	124	20,846	8,045	28.9%
2021	631	128	21,665	8,358	30.0%
2022	639	132	22,499	8,693	31.2%

<sup>1</sup>OFL/ACL value for 2011 has been adopted by the PFMC and the value for 2012 is likely to be adopted (John DeVore, personal com.), and hence are not based on the results of this update.

### **Decision table**

The format of this decision table is unchanged from the 2007 and 2009 assessments. Because canary rockfish is currently managed under a rebuilding plan, this decision table is only intended to better compare and contrast the base case with uncertainty among states of nature. The results of the rebuilding plan integrate these three states of nature as well as projected recruitment variability. Relative probabilities of each state of nature are based on a meta-analysis for steepness of West Coast rockfish (M. Dorn, AFSC, personal communication). Landings in 2011-2012 are 102 and 107 mt, respectively, for all cases. Selectivity and fleet allocations are projected at the average 2008-2010 values.

Table e. Decision table of 12-year projections for alternate states of nature (columns) and management options (rows) beginning in 2011. Relative probabilities of each state of nature are based on a 2007 meta-analysis for steepness of West Coast rockfish (M. Dorn, AFSC, personal communication). Landings in 2011-2012 are 102 and 107 mt, respectively for all cases. Selectivity and fleet allocations are projected at the average 2008-2010 values.

		State of nature						
		Low steepness (0.35)		Base case (steepness = 0.51)		High steepness (0.72)		
Relative probability		0.25		0.5		0.25		
Management decision	Catch (mt)	Depletion	Spawning biomass (mt)	Depletion	Spawning biomass (mt)	Depletion	Spawning biomass (mt)	
Rebuilding SPR 88.7% catches from low steepness state of nature	2013	0.0	5.6%	1,573	24.1%	6,722	44.0%	12,107
	2014	0.0	5.7%	1,592	24.7%	6,864	45.1%	12,415
	2015	0.0	5.7%	1,613	25.2%	7,019	46.3%	12,742
	2016	0.0	5.8%	1,640	25.9%	7,201	47.7%	13,108
	2017	0.0	5.9%	1,673	26.6%	7,419	49.2%	13,518
	2018	0.0	6.1%	1,716	27.6%	7,673	50.8%	13,965
	2019	0.0	6.3%	1,766	28.6%	7,968	52.5%	14,444
	2020	0.0	6.5%	1,825	29.8%	8,300	54.4%	14,947
	2021	0.0	6.7%	1,891	31.1%	8,663	56.2%	15,467
	2022	0.0	7.0%	1,961	32.5%	9,051	58.2%	15,995
Rebuilding SPR 88.7% catches from base case	2013	70	5.6%	1,573	24.1%	6,722	44.0%	12,107
	2014	75	5.6%	1,567	24.6%	6,838	45.1%	12,389
	2015	80	5.5%	1,559	25.0%	6,964	46.1%	12,687
	2016	85	5.5%	1,553	25.5%	7,114	47.3%	13,020
	2017	90	5.5%	1,551	26.2%	7,295	48.7%	13,392
	2018	96	5.5%	1,554	27.0%	7,510	50.2%	13,798
	2019	102	5.6%	1,562	27.9%	7,760	51.8%	14,233
	2020	108	5.6%	1,575	28.9%	8,045	53.4%	14,689
	2021	113	5.7%	1,591	30.0%	8,358	55.1%	15,159
	2022	119	5.7%	1,609	31.2%	8,693	56.9%	15,635
Rebuilding SPR 88.7% catches from high steepness state of nature	2013	163	5.6%	1,573	24.1%	6,722	44.0%	12,107
	2014	171	5.4%	1,533	24.4%	6,805	44.9%	12,355
	2015	177	5.3%	1,488	24.8%	6,894	45.9%	12,615
	2016	182	5.1%	1,442	25.1%	7,003	46.9%	12,907
	2017	187	5.0%	1,399	25.6%	7,142	48.1%	13,236
	2018	193	4.8%	1,359	26.3%	7,312	49.4%	13,597
	2019	198	4.7%	1,324	27.0%	7,518	50.9%	13,985
	2020	202	4.6%	1,292	27.9%	7,756	52.3%	14,395
	2021	207	4.5%	1,263	28.8%	8,024	53.9%	14,820
	2022	211	4.4%	1,235	29.9%	8,313	55.5%	15,252
Status quo (catch = 105 mt)	2013	105	5.6%	1,573	24.1%	6,722	44.0%	12,106
	2014	105	5.5%	1,553	24.5%	6,825	45.0%	12,376
	2015	105	5.5%	1,534	24.9%	6,940	46.0%	12,662
	2016	105	5.4%	1,517	25.4%	7,078	47.2%	12,983
	2017	105	5.4%	1,506	26.0%	7,250	48.5%	13,346
	2018	105	5.3%	1,502	26.8%	7,457	50.0%	13,744
	2019	105	5.3%	1,504	27.7%	7,701	51.5%	14,173
	2020	105	5.4%	1,514	28.7%	7,983	53.2%	14,626
	2021	105	5.4%	1,529	29.8%	8,296	54.9%	15,095
	2022	105	5.5%	1,549	31.0%	8,632	56.6%	15,574

### ***Research and data needs***

Progress on a number of research topics would substantially improve the ability of this assessment to reliably and precisely model canary rockfish population dynamics in the future and provide better monitoring of progress toward rebuilding:

1. Expanded Assessment Region: Given the high occurrence of canary rockfish close to the US-Canada border, a joint US-Canada assessment should be considered in the future.
2. Many assessments (including this one) have derived historical catch by applying various ratios to the total rockfish catch prior to the period when most species were delineated. Based on the sensitivity of this update to the revised catch history for Oregon, a comprehensive historical catch reconstruction for all rockfish species is needed for Washington as well.
3. Habitat relationships: The historical and current relationship between canary rockfish distribution and habitat features should be investigated to provide more precise estimates of abundance from the surveys, and to guide survey augmentations that could better track rebuilding through targeted application of newly developed survey technologies. Such studies could also assist determining the possibility of dome-shaped selectivity, aid in evaluation of spatial structure and the use of fleets to capture geographically-based patterns in stock characteristics.
4. Meta-population model: The spatial patterns show patchiness in the occurrence of large vs. small canary; reduced occurrence of large/old canary south of San Francisco; and concentrations of canary rockfish near the US-Canada border. The feasibility of a meta-population model that has linked regional sub-populations should be explored as a more accurate characterization of the coast-wide population's structure. Tagging of other direct information on adult movement will be essential to this effort.
5. Increased computational power and/or efficiency is required to move toward fully Bayesian approaches that may better integrate over both parameter and model uncertainty.
6. Additional exploration of surface ages from the late 1970s and inclusion into or comparison with the assessment model, or re-aging of the otoliths could improve the information regarding that time period when the stock underwent the most dramatic decline. Auxiliary biological data collected by ODFW from recreational catches and hook-and-line projects may also increase the performance of the assessment model in accurately estimating recent trends and stock size.
7. Due to inconsistencies between studies and scarcity of appropriate data, new data are needed on both the maturity and fecundity relationships for canary rockfish.
8. Re-evaluation of the pre-recruit index as a predictor of recent year class strength should be ongoing as future assessments generate a longer series of well-estimated recent recruitments to compare with the coast-wide survey index.
9. Meta-analysis or other summary of the degree of recruitment variability and the relative steepness for other rockfish and groundfish stocks should be ongoing, as this information is

likely to be very important for model results (as it is here) in the foreseeable future.

10. Re-visit West Coast Groundfish Observer Program (WCGOP) estimates of discards. Discrepancies in landings and discard estimates were recognized due to recent updates within PacFIN as well as the development of new discard estimation methods. Reconciliation of landing estimates between WCGOP and PacFIN need to be made to ensure proper use of each data set.

#### ***Rebuilding projections***

The rebuilding projections will be presented in a separate rebuilding analysis.

Table f. Summary of recent trends in estimated canary rockfish exploitation and stock levels from the base-case model; all values reported at the beginning of the year.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Commercial landings (mt) <sup>1</sup>	69.9	75.8	49.3	10.9	7.7	12.1	8.2	11.7	14.3	
Total catch (mt)	120.5	134.4	103.4	53.9	64.8	57.4	53.8	58.1	81.8	
ABC (mt) ( <i>now OFL</i> )	228	272	256	270	279	172	179	937	940	586
OY ( <i>now ACL</i> )	93	44	47.3	46.8	47	44	44	105	105	102
SPR	83%	83%	88%	92%	92%	94%	95%	95%	88%	NA
Exploitation rate (catch/age 5+ biomass)	0.01145	0.01201	0.00873	0.00434	0.00489	0.00414	0.0037	0.00389	0.00538	NA
Age 5+ biomass (mt)	10,524	11,190	11,849	12,429	13,260	13,868	14,550	14,947	15,204	15,444
Spawning biomass (mt)	3,849	4,196	4,520	4,834	5,138	5,431	5,720	5,997	6,254	6,458
~95% Confidence interval	2,648- 5,049	2,882- 5,510	3,100- 5,940	3,317- 6,350	3,533- 6,744	3,744- 7,119	3,954- 7,485	4,159- 7,834	4,352- 8,155	4,506- 8,411
Recruitment (1000s)	990	1,348	469	356	820	2201	656	2,237	1,036	1,869
~95% Confidence interval	587-1,394	850-1,845	241-697	143-569	392-1,248	1,186-3,217	162-1,151	608-3,867	45-2,027	0-3,743
Depletion	0.138	0.151	0.162	0.174	0.185	0.195	0.205	0.215	0.225	0.232
~95% Confidence interval	0.10-0.18	0.11-0.20	0.11-0.21	0.12-0.23	0.13-0.24	0.14-0.25	0.15-0.27	0.15-0.28	0.16-0.29	0.17-0.3

<sup>1</sup>Excludes all at-sea whiting, recreational and research catches.

Table g. Summary of canary rockfish reference points from the base case model. Values are based on 1994-1998 fishery selectivity and allocation to reflect the performance of recent targeted fishing rather than the current bycatch-only environment.

Quantity	Estimate	~95% Confidence interval
Unfished spawning stock biomass ( $SB_0$ , mt)	27,846	26,024-29,669
Unfished 5+ biomass (mt)	70,664	66,655-74,673
Unfished recruitment ( $R_0$ , thousands)	3,350	3,121-3,578
<b><u>Reference points based on <math>SB_{40\%}</math></u></b>		
MSY Proxy Spawning Stock Biomass ( $SB_{40\%}$ )	11,139	10,410-11,868
SPR resulting in $SB_{40\%}$ ( $SPR_{SB40\%}$ )	0.54	0.54-0.54
Exploitation rate resulting in $SB_{40\%}$	0.0285	0.0271-0.0299
Yield with $SPR_{SB40\%}$ at $SB_{40\%}$ (mt)	801	739-862
<b><u>Reference points based on SPR proxy for MSY</u></b>		
Spawning Stock Biomass at SPR ( $SB_{SPR}$ )(mt)	9,545	8,920-10,169
$SPR_{MSY-proxy}$	0.5	NA
Exploitation rate corresponding to SPR	0.0331	0.0315-0.0348
Yield with $SPR_{MSY-proxy}$ at $SB_{SPR}$ (mt)	799	738-860
<b><u>Reference points based on estimated MSY values</u></b>		
Spawning Stock Biomass at MSY ( $SB_{MSY}$ ) (mt)	10,464	9,796-11,133
$SPR_{MSY}$	0.525	0.523-0.527
Exploitation Rate corresponding to $SPR_{MSY}$	0.0304	0.029-0.0318
$MSY$ (mt)	803	741-864

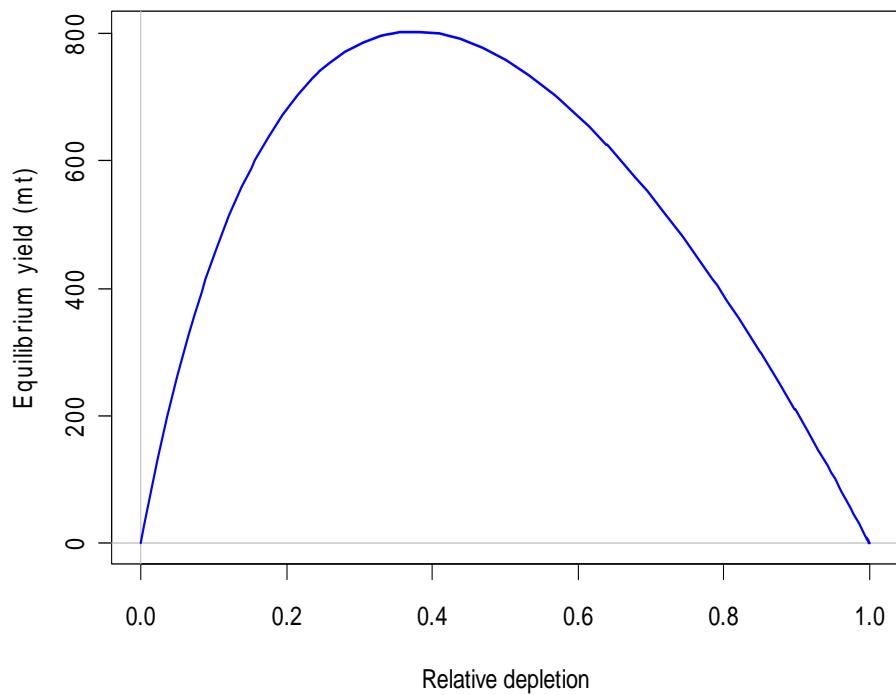


Figure h. Equilibrium yield curve for the base-case model. Values are based on the end year of the model.

## **1. Introduction**

This updated assessment does not attempt to reiterate all background information for canary rockfish presented in the 2007 assessment document. Instead, only a few key assumptions are restated, along with a detailed description of changes made during the course of the update. Those interested in a more complete description of canary rockfish life-history and the details of previous assessments should refer to the 2007 assessment (Stewart 2008).

### ***1.1 Distribution and Stock Structure***

Canary rockfish (*Sebastodes pinniger*) are distributed in the northeastern Pacific Ocean from the western Gulf of Alaska to northern Baja California; however, the species is most abundant from British Columbia to central California (Miller and Lea 1972, Hart 1973, Love et al. 2002). Adults are primarily found along the continental shelf shallower than 300 m, although they are occasionally observed in deeper waters. Juvenile canary rockfish are found in shallow and intertidal areas (Love et al. 2002).

There exists little direct information regarding the likely stock structure of canary rockfish off the U.S. Pacific coast, and the assumption of a single pan-mictic stock remains unchanged in this updated assessment. As in past assessments, this updated assessment treats the U.S. canary rockfish resource from the Mexican border to the Canadian border as a single coast-wide stock. The fishing fleets are separated geographically (Figure 1 in the 2007 assessment; Stewart 2008) to account for potential spatial patterns while retaining a coast-wide assessment area. The use of the U.S.-Canadian border as a biological boundary comprises a significant source of uncertainty and potential model misspecification as pelagic larvae, juveniles, and possibly adults likely cross this line while making their ontogenetic shift to deeper water or moving between areas of rocky habitat.

### ***1.2 Life history and ecosystem interactions***

Canary rockfish spawn in the winter, producing pelagic larvae and juveniles that remain in the upper water column for 3-4 months (Love et al. 2002). These juveniles settle in shallow water around nearshore rocky reefs, where they may congregate for up to three years (Boehlert 1980, Sampson 1996) before moving into deeper water. The mean size of individuals captured in the trawl survey shows a characteristic ontogenetic shift to deeper water with increasing body size. The degree to which this ontogenetic shift may be accompanied by a component of latitudinal dispersal from shallow rocky reefs is unknown. Canary rockfish are a medium to large-bodied rockfish; achieving a maximum size of around 70 cm. Female canary rockfish reach slightly larger sizes than males.

Adult canary rockfish primarily inhabit areas in and around rocky habitat. They form very dense schools, leading to an extremely patchy population distribution that is reflected in both fishery and survey encounter rates. This distribution may have effects on the calculation and interpretation of population indices and age- or size-composition data.

Canary rockfish are relatively long-lived, with a maximum observed age of 95 years, however only males are commonly observed above the age of 50, while females tend to be rare above age 30. The degree to which this pattern reflects behavioral differences

translating to reduced availability to fishery and survey fishing gear, or an increase in relative mortality for older females has been the focus of much discussion and remains unclear. A similar pattern has been observed for yellowtail rockfish (*Sebastes flavidus*), a closely related, but more pelagic species with a similar distribution (Wallace and Lai 2005).

### **1.3 Historical and Current Fishery**

The historical and current fisheries are described in detail in the 2007 assessment (Stewart 2008). The recently revised Oregon historical catch reconstruction (Karnowski, et al. In prep.) for canary rockfish is the major source of difference between this update and the 2009 assessment update. The historical period (before 1986) of the catch history for canary rockfish has been revised by ODFG for this updated assessment. The net result of this revision is that the total estimated catch, from 1916 to 1986, is 36.5% higher than in 2009, and only 4.3% lower than in 2007 (Figure 1)

### **1.4 Management History and performance**

The management history is described in detail in the 2007 assessment (Stewart 2008). Since the assessment conducted in 1999 (California and Washington-Oregon), which found the stock to be depleted and resulted in an overfished determination in the year 2000, OYs for canary have been reduced dramatically. Both commercial and recreational fishing opportunities have been severely restricted and recent removals have been primarily from bycatch. Table 1 summarizes the coast-wide ABC's and catch in recent years. In recent years, the total mortality has been slightly above the OY (higher in retrospect based on current methods used for total mortality estimates), but well below the ABC.

### **1.5 Fisheries in Canada and Alaska**

The background provided in the 2007 assessment on Canadian and Alaskan fisheries for canary rockfish has not been updated for this assessment.

## **2. Assessment**

The following sources of data, identical in scope to those used in 2007 and 2009 (except where noted), were used in building this assessment:

- 1) Fishery independent data including bottom trawl survey-based indices of abundance and biological data (age and length) from 2003-2010 (NWFSC survey) and 1980-2004 (Triennial survey). Note that for the NWFSC data, all hauls that were previously conducted within cells where trawl sampling is no longer permitted (totaling 115 hauls between 2003 and 2010) have been identified, marked, and filtered out from the data used.
- 2) Pre-recruit survey index of recruitment strength from 2001-2010.
- 3) Estimates of fecundity, maturity, length-weight relationships and ageing error from various sources (not re-estimated as part of this update).
- 4) Commercial (targeted and bycatch) and recreational landings from 1916-2010. The historical time series of catch estimates from Oregon has been revised (see below for details).

- 5) Estimates of discard rates, total mortality and discard mortality (recreational only) from various sources (updated only for 2002-2010).
- 6) Research catches from 1977-2010.
- 7) Fishery biological data (age and length) from 1968-2010

Data availability by source and year, as well as a delineation between data available for the 2007 assessment and what is new in this analysis, is presented in Table 2. A description of each of the specific data sources is presented below.

## **2.1 Fishery-Independent Data**

### **2.1.1 NWFSC trawl survey**

The NWFSC shelf and slope trawl survey time series has been extended (only 2003-2009 was available for the 2009 update) to include 2009 and 2010. Three sources of information are produced by this survey: an index of relative abundance, length-frequency distributions, and age-frequency distributions. See the 2007 document (Stewart 2008) for a more detailed description of survey design and methods.

The NWFSC survey encounters canary infrequently, generally in less than 10% of the total tows conducted. These catches are infrequently very large: 4.9 mt in a single 12-15 minute tow in 2006. Tows of this magnitude were not observed in either 2009 or 2010.

As in 2007 and 2009, Indices of abundance were derived using a generalized linear mixed model (GLMM), including vessel-specific differences in catchability (via inclusion of random effects), for each survey time series following the methods of Helser et al. (2004). The Delta-GLMM approach explicitly models both the zero and non-zero catches and allows for skewness in the distribution of catch rates through the use of a gamma or lognormal error structure. This assessment's GLMM indexes were generated using the same basic method, but reprogrammed by the first author, utilizing a package which uses OpenBUGS (<http://www.openbugs.info/>) (an offshoot of WinBUGS) running under the statistical programming language R. Although point estimates and confidence intervals differed slightly between the two implementations applied to data through 2008 (Figure 1), the basic trend remained unchanged.

While working with this year's Delta-GLMM implementation, the first author ran simulations to look at the performance of the models. Both the gamma and log-normal error models were fit to gamma and log-normal simulated data. During these simulations it was noticed that the unique 'log x' parameterization of the log-normal distribution (<http://www.mrc-bsu.cam.ac.uk/bugs/winbugs/manual14.pdf>, pg 58):

$$\sqrt{\frac{\tau}{2\pi}} \frac{1}{x} \exp\left(-\frac{\tau}{2}(\log x - \mu)^2\right); \quad x > 0$$

still required a final bias adjustment to make the model reported DIC correct. [Note that, the parameterization is unique for the log-normal compared to other distributions, but is almost

universally used for the log-normal, and hence other R packages (and although unchecked, almost certainly, other statistical software as well) have this inherently wrong also.]

The bias adjustment, on the log-normal distribution for the GLMM of the NWFSC shelf-slope survey (2003-2010) data, computes a relatively large DIC, making it substantially larger than the gamma error model. This reveals that the log-normal error model is not, in fact, the best model as was previously assumed when the bias correction was not done.

The biomass index shows a relatively flat biomass trend over the period 2003-2010 with a large increase only in 2006 (Figure 1). The sensitivity of the index to the very large tow in 2006 is not a new phenomenon, and was explored as part of the 2007 assessment. As in 2007, twenty-eight bins, from 12 to 66 cm, were used to summarize the length frequency of the survey catches in each year, the first bin including all observations less than 12 cm and the last bin including all fish larger than 66 cm. These bins are populated with a modest, but consistent degree of sampling: 32-53 tows and 308-799 fish per year (Table 4). Broadly, the length frequency distributions for the NWFSC survey from 2003-2010 show a range of sizes captured from a few 12-14 cm individuals out to some 67 cm females (Figure 11). No clear cohorts, nor any obvious trend, are visible in the length data; however the size distributions for both males and females in 2008 showed a very large number of small canary rockfish.

As in 2007 and 2009, age-frequency data from the NWFSC survey was compiled as conditional age-at-length distributions by sex and year. The method and rationale is presented in the 2007 assessment document and remains unchanged. Age distributions included 35 bins from age 1 to age 35, with the last bin including all fish of greater age. Approximately half as many fish were sampled for age as for length, but these fish were collected from a similar number of tows (Table 4). These distributions show a tight range of ages at a given length, and clearly show the growth trajectory of females reaching larger sizes than males for a given age (Figures 19-20). It is often useful for interpretation to compute the marginal age-compositions, and include these in the assessment model (with the likelihood contribution turned off, so they do not affect model fit in any way) for comparison of the ‘implied’ fit to the margin of the age-length key. The marginal age compositions allow for easier visual tracking of strong cohorts (although this information is still imparted to the model using conditional age-at-length observations, it is harder to visualize) and offer a view of the data more familiar for those accustomed to diagnosing model fit based on marginal age-composition data. Although these NWFSC age distributions seem to show some diagonal structure, close inspection reveals that it does not track consistently through any of the recent cohorts (15).

### *2.1.2 Triennial trawl survey*

The largest source of fishery-independent data regarding the abundance of canary rockfish is the triennial shelf trawl survey conducted by NMFS starting in 1977 (Dark and Wilkins 1994). The 2007 assessment contains a thorough description of the survey, and methods for analyzing the data for use in the canary assessment. The data are unchanged from those used in 2007. The GLMM-based indexes show a decline in the population

through the mid-1990s and then a flat or slightly increasing trajectory (Figure 3). It is uncertain why the 1980 observation was lower than 1983 when the population was likely declining rapidly under very large removals, but this pattern is present for other species as well.

Size and conditional age-frequency distributions from the NMFS Triennial survey are unchanged from those used in 2007.

### *2.1.3 Pre-recruit survey*

The coast-wide mid-water trawl survey of pre-recruit pelagic juvenile rockfish conducted by the Southwest Fisheries Science Center (SWFSC) and the PWCC/NWFSC was included in the 2007 and 2009 assessments as a pre-density dependent recruitment strength index. This ANOVA analysis was updated to include the 2009 and 2010 survey data for use in 2011 stock assessments (S. Ralston, personal communication). The ANOVA variance estimates as used in 2009, and subsequently tuned (see below), were again used for this update. The index shows relatively large year-classes in 2002 and 2004 (Figure 4).

### *2.1.4 Canadian survey data*

Canadian surveys for the area most likely to be linked to the U.S. resource, the waters off Vancouver Island, were not re-evaluated for this updated assessment.

### *2.1.5 Other fishery independent data*

Since they were not included in the 2007 assessment, the NWFSC's cooperative fishery independent hook-and-line survey targeting rockfish in the Southern California Bight, the Oregon State University hook-and-line sampling (D. Sampson and S. Heppell), and the OSU 'volcano trawl' video sampling (D. Sampson and S. Heppell) were not reevaluated for this update. However, these and other data sets may prove worth investigating in future canary assessments.

## **2.2 Biological Data**

See the 2007 assessment document for a description of the source of biological parameters estimated outside the assessment model. These values are treated as fixed and therefore uncertainty reported for the stock assessment results does not include any uncertainty associated with these quantities. All input values remain unchanged from the 2007 assessment (Table 5).

### *2.2.1 Weight-Length*

The weight-length relationship used for this update is identical to that used in 2007 (Table 5).

### *2.2.2 Maturity and fecundity*

The maturity-at-length and fecundity relationships used for this update are identical to those used in 2007 (Table 5).

### *2.2.3 Natural Mortality*

The natural mortality rate used for males and females < age 6 in this update is identical (0.06) to that used in 2007 (Table 5). As in the 2007 assessment, the degree of increase for older females (age 14+) is treated as an estimated parameter.

### *2.2.4 Ageing Precision and Bias*

The ageing imprecision and bias estimates used for this update are identical to those used in 2007. That document provides a description of the data and methods upon which they are based.

### *2.2.5 Research removals*

Research catches have historically been only a tiny fraction of the total removals from the canary rockfish population. However, as total mortality has been very low since 2000, the relative contribution of research removals to the total has increased. This was particularly true in 2006, when research catches comprised 7.8 mt (Table 6). As in 2007 and 2009, research catches are explicitly accounted for in this updated stock assessment.

## **2.3 Fisher- Dependent Data**

### *2.3.1 Oregon Historical Catch Reconstruction*

Historical landings of canary rockfish in Oregon were provided by Oregon Department of Fish and Wildlife (ODFW), which in collaboration with Northwest Fisheries Science Center (NWFSC), conducted a reconstruction of west coast groundfish landings in Oregon.

Historically, rockfish in Oregon were landed in three mixed species market categories, including ROCKFISH (also known as Other Rockfish or Unspecified Rockfish), POP (Pacific Ocean Perch) and ANIMAL FOOD (also called Mink Food or Miscellaneous by some sources).

The Oregon historical reconstruction included four steps:

- 1) Determine the annual landings in each market category by gear;
- 2) Derive species compositions for each market category by gear, year and spatial stratum (when available);
- 3) Apply the year and gear specific species compositions to the historical landings in each market category (from Step 1) to obtain a species-specific time-series of landings;
- 4) Sum the species-specific landings by gear across market categories to obtain a final per-species time-series of landings in Oregon.

A variety of data sources were used to reconstruct historical landings of each market category, including Oregon Department of Fish and Wildlife's pounds and value reports derived from the Oregon fish ticket line data (1969-1977), Fisheries Statistics of the United States (1927-1977), Fisheries statistics of Oregon (Cleaver 1951, Smith 1956), Reports of

the Technical Sub-Committee of the International Trawl Fishery Committee (1942-1975) and many others.

Trawl species compositions of market categories were derived from historical sampling program of Oregon trawlers conducted by ODFW between 1963 and 1993 (Dauglas 1998). The spatial strata used to derive trawl species compositions were defined by PMFC areas and depth of the catch (<50fm, 51-80fm, 81-120fm and >120fm). For non-trawl catches the earliest available species compositions were assumed for the historical period.

The detailed description of the sources used and the methodology employed in the Oregon reconstruction efforts is available in Gertseva et al. (2010) and Karnowski et al. (2011).

### *2.3.2 Recent Landings (1981 to present)*

As in 2007 and 2009, recent landings reflect the most current information from the PacFIN, CalCOM, NORPAC, RECFIN and State recreational databases. Commercial landings estimates of canary rockfish from 1981 to 2010 were generated from the PacFIN database (Extraction: May` , 2011` , Daspit et al. 1997) for Oregon and Washington and California.

### *2.3.3 Discards*

As in the 2005, 2007, and 2009 assessments, discard rates were applied to convert landings to total catch estimates. The 2005 and 2007 documents provide a description of the rationale for this approach. Values were 0.0123% for all commercial fleets until 1994 and then 16% for all commercial fleets until 1999. Beginning with the year 2001, there were discard observations collected by the West Coast Groundfish Observer Program that were considered applicable to some fleets. Discard rates used for 2002- 2010 were calculated to be consistent with total mortality estimates created for the submission to national NMFS reports, the Pacific Council, and the GMT. By working backward from the total mortality (or total discard by weight) and the current landings estimate, a likely discard rate was developed for each fleet. Because the delineations over geography, between gear types and tribal vs. non-tribal sectors often differ from GMT “scorecards” and other summaries available from the Council, it may be misleading to compare the actual discard rates and comparisons should focus on total mortality values. Where updated landings, bycatch estimates or research catches were available the most up to date information has been included in this assessment. The trawl fleets had a discard rates based on at-sea observer data on a year-specific basis for 2002-2010. The non-trawl fleets had similarly high discard rates. Recreational discarding was incorporated through the use of the landed and discarded dead (A + B1) categories.

As in 2007 and 2009, this updated assessment treats observations of the discarded canary rockfish in a similar manner to those collected from port samples. Biological observations from each tow are expanded from the fish actually measured to the total number of fish in the biological sample. This number is then further expanded to the estimated total number of fish in the discard for that tow. Expanded length- (or age-) frequencies were then brought to the fleet level by multiplying each value by the ratio of total discarded weight for that fleet to the total discard that was sampled by the observer

program. This allowed port and observer samples to be combined into a set of biological observations representing the entire catch of canary rockfish for that fleet and year. Observer samples comprised much of the biological data for the commercial trawl and non-trawl fleets in 2004-2010, due to limitations on landing canary, which have restricted the access of port samplers to a very small fraction of the total mortality.

#### *2.3.4 Recreational Fishery*

Estimates of recreational catch from 1981-2006 remain unchanged from the 2009 assessment. For the most recent years, 2007-2010, updated state estimates are included.

No attempt was made as part of this updated assessment to correct for the 2009 discovery of large numbers of recreationally caught rockfish that are not apportioned to species and therefore not included in recreational catch estimates. This should be revisited as part of the next full assessment for canary rockfish if available.

#### *2.3.5 Foreign Catches*

Foreign catches are included in the catch estimates for trawl fleets by state (Table 6), as was done in the 2007 and 2009 assessments.

#### *2.3.6 Fishery Logbooks*

As in 2007 and 2009, no logbook information is included in this assessment.

#### *2.3.7 Fishery Biological Sampling*

Commercial length-frequency distributions were developed for each fleet for which observations were available, following the methods used for the 2007 and 2009 assessments. The same bin structure was used for research observations.

Generally, the fishery length-frequency data have become much sparser in recent years, and small sample-sizes preclude much obvious signal from data sources that have never shown evidence of strong cohorts. Weighted age-frequency distributions were compiled by fleet and method of ageing, as was done in 2007 and 2009. Break-and-burn ages read by CAP or ODFW were treated separately from those read by WDFW following the development of separate ageing error keys in the 2007 assessment. Surface ages are again excluded due to high levels of bias and imprecision for older fish. Again following the 2007 methods, commercial age data was not treated as conditional age-at-length data due to prohibitive model run time. Therefore, marginal commercial age-frequency distributions were used for all fishery age-frequency data.

New age data were sparse and this generally reflects low levels of landings and sampling of canary rockfish from fishery sources. One exception was the at-sea whiting fishery, which provides a few hundred age structures per year. The 2009 and 2010 age data are included in this assessment, in addition to 44 new ages from 2008.

## **2.4 History of Modeling Approaches**

### **2.4.1 Previous assessments**

The 2007 assessment document contains a detailed description of the history of canary rockfish assessments.

### **2.4.2 Pre-assessment workshop, GAP and GMT input**

Because this is an updated assessment, there was no formal or informal discussion of data, modeling or management issues for 2011. This has been a valuable part of the assessment process in recent years and should be continued for the next full assessment.

### **2.4.3 Response to the review panel recommendations in 2007**

The STAR panel report from the 2007 review outlined a number of recommendations for future research and data collection. As this was an updated assessment these issues were not revisited, but are reiterated here for consideration in future canary and other assessments:

- *For the next canary rockfish stock assessment*
  - *Assumptions about stock structure and distributional boundaries should be reviewed in light of information on Canadian/Alaskan catches.*
  - *A catch history should be reconstructed using all available data including catch by gear and by region. The reconstruction should include an envelope of high and low values to set bounds for exploration of alternative catch histories. As has been previously recommended, the reconstruction needs to be done comprehensively across all rockfish species to ensure efficiency and consistency.*
  - *Evaluate the feasibility of a bi-lateral assessment with Canadian scientists, perhaps through the TSC (Technical Subcommittee of US Canada groundfish working group).*
  - *Investigate the importance of calendar date and other covariates on catch rates from the triennial survey and propose adjustments to account for seasonal and other variation in selectivity/availability.*
- *Generic issues for groundfish assessments*
  - *Establish a meta database of all data relevant to groundfish stock assessment. The database should include enough detail about the nature and quality of the data that a stock assessment author can make a well informed decision on whether it could be useful for their stock assessment.*
  - *Establish accessible online databases for all data relevant to groundfish stock assessment, so that assessment authors can obtain the raw data if required.*
  - *Establish a database for historical groundfish catch histories, “best” guesses and estimates of uncertainty (and processes for updating and revising the database).*
  - *Develop a concise set of documents that provide details of common data sources and methods used for analyzing the data to derive assessment model inputs.*
  - *Develop standard and appropriate methods for modeling age and length data, including choice of distribution, initial variance assumptions, and tuning methods (current methods can and should be improved).*

- *Routinely produce and present supporting documentation for any derived indices which are included in a stock assessment model (e.g., GLMM derived trawl survey abundance indices).*

## **2.5 Model Description**

### **2.5.1 Link from the 2009 to the updated assessment model**

The bridge from the 2009 stock assessment model to the current base case followed three general steps: 1) upgrade to the newest version of SS, 2) rebuild all of the data inputs to reflect the best information currently available, including recent catch series, fishery biological data, and GLMM-based indices of survey abundance and 3) replace the historical catch reconstruction with the revised reconstruction produced by the SWFSC and CDF&G. A thorough description of the 2007 assessment model is presented separately below; this section linking the models is intended only to more clearly identify the effects of these changes.

Rebuilding the data streams was performed as described above. This incorporated all recently available assessment data as well as revised catch estimates from total mortality reports and standard sources for the period 1981-2010 (Table 2). These new data resulted in a slightly more pessimistic view of the recent stock recovery trajectory, but still inside the lower 95% confidence interval from the 2009 assessment. The central portion of the time-series estimates remained largely unchanged (~1965-1990;

Figure 5).

### **2.5.2 Summary of data for fleets and areas**

As in the 2007 and 2009 assessments, fishery removals were divided among 11 fleets: 1) Southern California trawl, 2) Northern California trawl, 3) Oregon trawl, 4) Washington trawl, 5) Southern California non-trawl, 6) Northern California non-trawl, 7) Oregon and Washington non-trawl, 8) Southern California recreational, 9) Northern California recreational, 10) Oregon and Washington recreational and 11) the canary bycatch from the at-sea whiting fishery. Removals associated with research projects (the trawl surveys, and other much smaller sources of permitted mortality due to scientific research) are treated as a fishing fleet, only in that the removals are included in the total. The data available for each fleet are described in Table 2; data that were new since the 2009 assessment are clearly identified.

### **2.5.3 Modeling software**

This assessment used the Stock Synthesis modeling framework written by Dr. Richard Methot at the NWFSC. The most recent version (3.21a, released 23 April 2011) was used, since it included several corrections to the older version (3.03d) used during the 2009 assessment.

### **2.5.4 Sample Weighting**

The approach to sample weighting remains unchanged from the 2007 and 2009 assessments: variance and sample sizes were first derived from the raw data sources using the same methods as in 2007, the variances and sample sizes were then iteratively re-weighted to ensure consistency between the input sample sizes (or standard errors), and the

effective sample sizes (and root-mean-squared errors) based on model fit. This approach attempts to reduce the potential for particular data sources to have a disproportionate effect of total model fit, while creating estimates of uncertainty that are commensurate with the uncertainty inherent in the input data. Iterative re-weighting was applied to the length, age and survey data from all fleets. This consisted of comparing the mean input sample size for compositional data with the mean effective sample size based on model fit. Where the input sample size was greater, this implied the model was unable to fit the data in a manner that was consistent with the level of variability expected in the data and so a multiplicative scalar was used to reduce the input sample size for all length- or age-composition samples for that fleet accordingly. For index data, the mean input standard error was compared with the root-mean-squared-error of the model fit to assess consistency of data and model fit. Where the mean effective sample size was greater than the mean input sample size, no change was made. This choice reflects the post-hoc nature of model tuning and the potential for increasing weight on those data sources that are consistent with model predictions, thereby reducing the perceived uncertainty in model results. Table 6 shows the results of this re-weighting for compositional data, with the length and age data from a few fleets down-weighted slightly and the at-sea whiting bycatch data down-weighted substantially. This is not unexpected, since the sampling for at-sea data is on a per haul basis, and those fishing operations tend to move only when the large aggregations of whiting they are targeting move. Therefore, fish within hauls would be expected to be less representative of independent samples, and even fish from multiple hauls may be collected from a very small geographic area.

Table 8 reports the results for index data. A small additional variance component was added to the early triennial observations (0.02) and the NWFSC trawl survey observations (0.09) resulting in reasonably close agreement between mean input standard errors and root-mean-squared-errors as well as a similar degree of observation error for all survey indices. The big change from the 2007 assessment was in the weighting of the pre-recruit index: in 2007 the mean input SE was 0.31 and an additional 0.11 was added during tuning. In this updated assessment, the input SE was much lower 0.05, due to the use of an alternate method of calculating this value, and a much larger additional component was added (0.93) to achieve consistency. This reflects substantially more information informing the recent recruitment estimates, apparently in conflict with the signal from the pre-recruit index.

Following the logic applied in the 2007 assessment, the lambda values (emphasis; a direct multiplier on the likelihood component) were again reduced to 0.5 for length and age data from a given fleet where both types of data are available. This is consistent with previous canary assessments, and many other west coast groundfish assessments.

### 2.5.5 Priors

Uniform (noninformative) priors exactly matching those used in 2007 and 2009 were applied to all estimated parameters in the base-case model. Parameter bounds were selected to be sufficiently wide to avoid truncating the searching procedure during maximum likelihood estimation. All parameter bounds and priors are provided in this document (Table 9).

The use of a prior on stock-recruitment steepness (M. Dorn, AFSC, personal communication) was explored during the 2007 STAR panel. Concern over the influence of

recently revised (2007 assessments) steepness profiles led to the recalculation of the posterior predictive distribution from the meta-analysis performed in 2006 removing the darkblotched rockfish profile. The revised prior was shifted to slightly lower steepness values than the earlier analysis, resulting in a distribution with the mean of the middle 50% equal to 0.511, the mean of the lower 50% equal to 0.345 and the mean of the upper 50% equal to 0.72. Although this prior is likely to be updated for 2011, it was unavailable for this assessment. As in 2007 and 2009, the base case uses the mean of the middle 50% of the prior distribution (0.511) as a point estimate, and a ‘states-of-nature’ approach to uncertainty in this parameter.

#### 2.5.6 General model specifications

Stock synthesis has a broad suite of structural options available for each application. These options were configured in the newest version to most closely match the behavior of the 2007 model and its sensitivity to new and potentially important aspects are considered below (see 2.9.1 *Sensitivity analyses*). The assessment remains sex-specific, including separate growth curves for males and females, and therefore tracking the spawning biomass of only females for use in calculating management quantities. Further, as has been done in previous canary assessments (and discussed above) natural mortality is allowed to increase (linearly) for females starting at age 6 and reaching an estimated asymptote at age 14, after which mortality is constant. Males and young females are assumed to have a natural mortality of 0.06.

For the internal population dynamics, ages 0-39 are individually tracked, with the accumulator age of 40 determining when the ‘plus-group’ calculations are applied. As there is little growth occurring at this age and the data are accumulated at age 35, this should be a robust choice (there needs to be enough space between the data ‘plus-group’ and that of the dynamics to avoid ageing error moving very old fish into observations of younger ages where this is unwarranted).

There are no explicit areas structuring the modeled dynamics of this assessment. No seasons are used to structure removals or biological predictions, so data collection is assumed to be relatively continuous throughout the year. Fishery removals occur instantaneously at the mid-point of each year and recruitment on the 1<sup>st</sup> of January. Since the time-series is started in 1916, the stock is assumed to be in equilibrium at the beginning of the modeled period. The sex-ratio at birth is fixed at 1:1, although by allowing increased natural mortality on females, size-based selectivity, and dimorphic growth this can vary appreciably due to differential mortality by age and sex.

#### 2.5.7 Estimated and fixed parameters

A full list of all estimated parameters and values of key parameters that are fixed is provided in Table 9, with the exception of recent recruitment deviations this parameter estimation framework remains unchanged from the 2007 assessment.

Time-invariant sex-specific growth is fully estimated in this assessment. This requires nine parameters, with the length at age 1 assumed to be equal for males and females. The log of the unexploited recruitment level for the Beverton-Holt stock-recruit function is treated as an estimated parameter in this assessment. Recruitment deviations are estimated for each year of the period informed by the data (1960+). This approach may

underestimate uncertainty in recruitment variability (and therefore derived quantities like spawning biomass) in the early years of the model. However, it provides for an efficient maximum likelihood minimization and may reduce unwarranted patterns in early deviations.

Double-normal selectivity was used for all fishing and survey fleets in the base-case model (unchanged from 2007). The initial selectivity parameter was fixed to a value of -9.0 resulting in the smallest length bin always having a derived selectivity value of 0.0. An exception to this was applied to the NWFSC trawl survey, where the initial selectivity was estimated, based on the frequency of small fish relative to all other fleets in the model. The ascending width parameter was estimated for all fleets, as was the peak and final selectivity parameters. For fishing fleets, the width of the flat-top on selectivity was fixed at -4.0, as this parameter is often redundant. For surveys this parameter was estimated. Where estimated selectivity curves were strongly asymptotic, then the descending width parameter was fixed at a value of 4.0 to avoid full redundancy as the estimated final selectivity parameter approached the upper bound and the derived selectivity value for lengths greater than the peak selectivity approached 1.0. For fleets that showed strongly dome-shaped selectivity, the descending width parameter was estimated to allow the ability to fit a greater range of domed shapes. For survey fleets, catchability parameters were directly estimated.

An identical approach to time-blocks was applied in this and the 2007 and 2009 assessment. When a time-block was added to the specification for a fleet, three parameters were allowed to vary: the ascending width, the peak and the final selectivity parameter. This was intended to allow flexibility in the full curve (ascending side, location and descending side) with the minimum amount of parameters.

## **2.6 Model Selection and Evaluation**

### **2.6.1 Key assumptions and structural choices**

Following the terms of reference for an updated assessment, all assumptions and structural choices remained unchanged, and were not reevaluated for 2011.

### **2.6.2 Alternate models explored**

A ‘standard’ update, ignoring the newly available historical catch reconstruction is presented for comparison with the base case presented here (Figure 5).

Exploration of the statistical support for time-blocks on fishery selectivity and additional flexibility for static curves was performed as part of the 2007 assessment. This exercise was not repeated here, but should be in the next full assessment, as likelihood contributions change due to iterative reweighting. It is also possible that the larger OY available to the 2011 fishery will require an additional time block in future assessments if fishing behavior changed appreciably. Time-blocks remain unchanged from the 2007 assessment allowing changes in selectivity at up to five points for each fleet: 1) 1979, roughly the average year for conversion of older fishing gear to high-rise and larger footrope trawl gear, 2) 1995, when the first canary-specific trip limits were imposed, 3) 2000, when canary were first managed under a rebuilding plan and OYs were drastically reduced, 4) 2002, when the Rockfish Conservation Areas (RCA) were first implemented,

eliminating large portions of historical fishing grounds from legal rockfish harvest, and 5) 2005, when selectivity flatfish trawl gear was required shoreward of the RCA.

Sex-specific selectivity curves have been a topic of much exploration in canary rockfish assessments prior to 2007 (when selectivity was modeled as not sex-specific) and although not revisited here, they should be periodically revisited in future assessments. Likewise the trade-off between age- and length-based selectivity curves was explored in 2007 and not revisited here, but remains a significant source of uncertainty in the canary assessment.

## **2.7 Response to SSC recommendations**

All STAR recommendations from 2007 that were incorporated into the final base-case model are retained for 2011; the 2007 document provides a point-by-point list of these changes made during that review.

## **2.8 Base-case model results**

The biological parameters estimated from the base-case model appear to be quite reasonable and consistent with the 2009 assessment (Table 10) and inspection of the raw data. Female and male canary rockfish showed similar growth trajectories to about age 10, with females growing to a maximum size (60 cm) that was about 8 cm larger than males (Table 11, Figure 6). Males are estimated to grow slightly faster than females, with both sexes showing a relatively tight distribution of lengths for a given age and with the relative CV decreasing with age. As in the 2009 assessment, natural mortality for females is estimated to increase from 0.06 at age 6 to 0.092 at age 14 (Figure 7). With this difference in sex-specific natural mortality, a male-dominated sex-ratio would be expected for older ages, but given the dimorphic growth a female-dominated sex ratio, what is observed would be expected for larger sizes regardless of age.

Estimated selectivity curves for the NWFSC survey selected more large canary with the peak at a larger size (52 vs. 48 cm, Table 10) reflecting the capture of many small canary in 2008. Catchability (Table 12) for fully selected canary in the NWFSC survey was estimated to be 0.868 (vs. 0.125 in 2009), 0.249 (vs. 0.111) for the early triennial survey (1980-1992) and 0.202 (vs. 0.078) for the later triennial survey (1995-2004). The best error structure for the NWFSC survey GLMM, given the data, changed from log-normal in 2009 to gamma for this update. This resulted in an absolute scale change for the NWFSC index (Figure 8), however the mean standardized index is close to that from 2009 (Figure 2). This change means the NWFSC survey catchability ( $Q$ ) has now increased to reflect this change, and hence can no longer be easily compared to the 2009 value. Selectivity curves for the various fishing fleets showed very similar patterns to those observed in the 2009 assessment.

The base-case model was able to fit the trawl survey indices quite well (Figure 8-9), despite the relatively small contribution to the total likelihood value. The base-case model fit the coast-wide pre-recruit index much worse than the pre-iteration input standard error (0.05) which was inflated by a factor of 0.93, to achieve consistency with an  $rmse$  of 0.92 (Table 8). This lack of fit primarily reflects conflict between the implied strengths of the 2002 and 2004 year-classes between this survey and the years of accumulated length and age data from other sources. In more recent years, the value of  $\sigma_r$  is also influential in

shifting recruitment sizes away from index-derived quantities and toward the stock-recruit expectation.

The base-case model fit the length and age distributions from the NWFSC and triennial surveys slightly better than expected based on the input sample sizes (Table 6, Figures 11-22). Although there is some lack-of-fit in specific years of the two time-series of length-frequency data, there are no strong trends in the Pearson residuals.

The implied fit to the marginal age-frequency data (not included in the likelihood, but used for comparison only) was also reasonably good for both surveys although the data are clearly quite noisy (Figures 15-16). The Pearson residuals reflect the noise in the data, both within and between years, but show no clear patterns (Figures 17-18). Pearson residuals for the fit to survey conditional age-at-length data are somewhat difficult to interpret. They generally show the effect of small sample sizes within rows on each year-specific key, as well as a few fish that deviate from expected growth pattern dramatically (Figures 19-22).

Fits to the fishery length- and age-frequency data did not require tuning to make average effective sample sizes equal to or greater than average input sample sizes (Table 6, Appendix A). Fits were varied, but generally reflect the heterogeneity in data quantity and quality among fleets. It is uncertain whether patterns observed in the fit to these data are a function of heterogeneity in sampling intensity over areas or ports within each fleet (observation error) or more continuous changes in fishery selectivity that is reflected in the size and age of the fish captured (process error).

Based on the revised catch series, canary rockfish were very lightly exploited until the early 1940's, when catches increased and a decline in biomass began (Figure 27). The rate of decline in spawning biomass accelerated during the late 1970s, and finally reached a minimum in the mid-1990s. The canary rockfish spawning stock biomass is estimated to have been gradually increasing since that time, in response to reductions in harvest and above average recruitment in the preceding decade. However, this trend is very uncertain. The base model asymptotic interval for 2011 spawning biomass remains broad: 4,506-8,410 mt. The time series of population trends for the base case is reported in Table 13, and the uncertainty in Table 14.

## **2.9 Uncertainty and Sensitivity Analysis**

As in 2007 and 2009, the base-case assessment model includes parameter uncertainty from a variety of sources, but underestimates the considerable uncertainty in recent trend and current stock status. For this reason, in addition to asymptotic confidence intervals (based upon the model's analytical estimate of the variance near the converged solution), two alternate states of nature regarding stock productivity (via the steepness parameter of the stock-recruitment relationship) are presented.

### **2.9.1 Sensitivity analysis**

The already described sensitivity to the fixed value for stock-recruit steepness and the revised historical catch series appear to be the greatest sources of change to model results in this updated assessment. Beyond those aspects of the model, a full evaluation of structural choices and data weighting was not repeated for this update. However, it is expected that the conflicting signals in the age and length data, seen in alternative

weighting schemes as well as the approach to time-varying triennial survey and fishery selectivity and catchability, remains as was identified in 2007.

An attempt to identify new factors most likely to be explored in the next full assessment included data weighting, time periods for recruitment deviation estimation and evaluation of a newly identified uncertainty in stock-recruit dynamics: the relative fraction of the bias correction applied to ‘fully-informed’ recruitment deviations. The latter structural decision reflects the reality that the appropriate degree of bias correction to apply is, in theory at least, a function of the ratio of the variance of the data informing recruitment deviations (relative to the true deviations) and the total variance of the data and true recruitment variability (R. Methot, personal communication). The default in recent assessments has been to assume that the correct fraction of the bias correction to apply is 1.0, but given sparse and noisy data, ageing error as well as conflicting signal from different data sources it is quite likely that a new default somewhat lower than 1.0 will emerge from simulation analyses at the NWFSC.

#### *2.9.2 Likelihood profiles*

New likelihood profiles were not completed for this update; however, alternate values for stock-recruit steepness suggested little change in the likelihood surface for this parameter relative to the 2007 assessment, with most of the density close to a value of 1.0.

### **3. Rebuilding parameters**

Revised rebuilding projections will be presented in a separate document after the assessment has been reviewed in September 2011. As in 2007 and 2009, the base-case assessment model includes parameter uncertainty from a variety of sources, but still likely underestimates the true uncertainty in recent trend and current stock status. For this reason, the three states of nature for stock-recruit steepness will be resampled in proportion to their relative probability and combined for the rebuilding analysis, identical to the approach taken in the 2007 and 2009 rebuilding analysis.

### **4. Reference points**

Unfished spawning stock biomass, in the base-case model, was estimated to be 27,846 mt (7% higher than the 2009 estimate of 25,993, and 14.5% lower than the 2007 estimate of 32,561 mt). The target stock size ( $SB_{40\%}$ ) is therefore 11,138 mt and the overfished threshold ( $SB_{25\%}$ ) is 6,962 mt. Maximum sustained yield (MSY) applying current fishery selectivity and allocations (a ‘bycatch-only’ scenario) was estimated in the assessment model to occur at a spawning stock biomass of 10,464 mt and produce an MSY catch of 803 mt (down from the 960 mt estimate in the 2009 update). This sustainable yield is achieved at an SPR of 52.5%, nearly identical to the estimate from the 2007 assessment (52.9%). This is nearly identical to the yield, 801 mt, generated by the SPR (54.0%) that stabilizes the stock at the  $SB_{40\%}$  target. The fishing mortality target/overfishing level (SPR = 50.0%) generates a yield of 799 mt at a stock size of 9,545 mt.

Fishing mortality rates in excess of the current F-target for rockfish of  $SPR_{50\%}$  are estimated to have begun in the late 1970s and persisted through 1999 (Table 1, Figures 28–30). Recent management actions appear to have curtailed the rate of removal such that overfishing has not occurred since 1999, and recent SPR values are in excess of 70% (>

90% since 2003). Relative exploitation rates (catch/biomass of age-5 and older fish) are estimated to have been less than 1% since 2001. These patterns are largely insensitive to the three states of nature.

## **5. Harvest projections and decision tables**

The forecast reported here will be replaced by the rebuilding analysis to be completed in September-October 2011 following SSC review of the stock assessment. In the interim, the total catch in 2011 and 2012 is set equal to the OY (102 and 107 mt, respectively). The exploitation rate for 2013 and beyond is based upon an SPR of 88.7%, which is the rebuilding SPR target identified in the 2009 rebuilding strategy. As in 2009, uncertainty in the rebuilding forecast will be based upon the three states of nature for steepness and random variability in future recruitment deviations for each rebuilding simulation. Current medium-term forecasts predict slow increases in abundance and available catch, with OY values for 2013 and 2014 higher than those predicted from the 2009 assessment (Table 17).

Because canary rockfish is currently managed under a rebuilding plan, the decision table provided with this update (Table 18) is only intended to better compare and contrast the base-case results with those from alternative states of nature which are plausible, given the perceived uncertainty in the base case. The results of the rebuilding plan will integrate these three states of nature, along with projected recruitment variability. Various alternate probabilities of rebuilding by target and limit time-periods and fishing mortality rates will also be evaluated in the rebuilding analysis. The format of this decision table is unchanged from the 2007 and 2009 assessments. Relative probabilities of each state of nature are based on a meta-analysis for steepness of West Coast rockfish (M. Dorn, AFSC, personal communication). Landings in 2011-2012 are 102 and 107 mt, respectively, for all cases. Selectivity and fleet allocations are projected at the average 2008-2010 values.

## **6. Regional management considerations**

As in 2007 and 2009, the resource is modeled as a single stock. Spatial aspects of the coast-wide population are addressed through geographic separation of data sources/fleets where possible and consideration of residual patterns that may be a result of inherent stock structure. There is currently no genetic evidence that there are distinct biological stocks of canary rockfish off the U.S. coast and very limited tagging data to describe adult movement, which may be significant across depth and latitude. Future efforts to specifically address regional management concerns will require a more spatially explicit model that likely includes the portion of the canary rockfish stock residing in Canadian waters off Vancouver Island.

## **7. Research needs**

Progress on a number of research topics would substantially improve the ability of this assessment to reliably and precisely model canary rockfish population dynamics in the future and provide better monitoring of progress toward rebuilding:

1. Expanded Assessment Region: Given the high occurrence of canary rockfish close to the US-Canada border, a joint US-Canada assessment should be considered in the future.
2. Many assessments (including this one) have derived historical catch by applying various ratios to the total rockfish catch prior to the period when most species were delineated. Based on the sensitivity of this update to the revised catch history for California, a comprehensive historical catch reconstruction for all rockfish species is needed for Washington and Oregon as well.
3. Habitat relationships: The historical and current relationship between canary rockfish distribution and habitat features should be investigated to provide more precise estimates of abundance from the surveys, and to guide survey augmentations that could better track rebuilding through targeted application of newly developed survey technologies. Such studies could also assist determining the possibility of dome-shaped selectivity, aid in evaluation of spatial structure and the use of fleets to capture geographically-based patterns in stock characteristics.
4. Meta-population model: The spatial patterns show patchiness in the occurrence of large vs. small canary; reduced occurrence of large/old canary south of San Francisco; and concentrations of canary rockfish near the US-Canada border. The feasibility of a meta-population model that has linked regional sub-populations should be explored as a more accurate characterization of the coast-wide population's structure. Tagging of other direct information on adult movement will be essential to this effort.
5. Increased computational power and/or efficiency is required to move toward fully Bayesian approaches that may better integrate over both parameter and model uncertainty.
6. Additional exploration of surface ages from the late 1970s and inclusion into or comparison with the assessment model, or re-aging of the otoliths could improve the information regarding that time period when the stock underwent the most dramatic decline. Auxiliary biological data collected by ODFW from recreational catches and hook-and-line projects may also increase the performance of the assessment model in accurately estimating recent trends and stock size.
7. Due to inconsistencies between studies and scarcity of appropriate data, new data are needed on both the maturity and fecundity relationships for canary rockfish.
8. Re-evaluation of the pre-recruit index as a predictor of recent year class strength should be ongoing as future assessments generate a longer series of well-estimated recent recruitments to compare with the coast-wide survey index.
9. Meta-analysis or other summary of the degree of recruitment variability and the relative steepness for other rockfish and groundfish stocks should be ongoing, as this information is likely to be very important for model results (as it is here) in the

foreseeable future.

10. Re-visit West Coast Groundfish Observer Program (WCGOP) estimates of discards. Discrepancies in landings and discard estimates were recognized due to recent updates within PacFIN as well as the development of new discard estimation methods. Reconciliation of landing estimates between WCGOP and PacFIN need to be made to ensure proper use of each data set.

## **8. Acknowledgements**

This assessment draws heavily on the text and analyses in the 2009, 2007, and earlier documents, and has benefited greatly from the efforts of all authors contributing to those analyses. All those who provided data sources for the 2007 assessment that have not been revisited in this update are recognized again for these important contributions. Many people at various state and federal agencies assisted with assembling the data sources included in this updated assessment. Jason Jannot provided total mortality estimates from recent years and summarized biological data from the West Coast Observer Program. Vanessa Tuttle provided biological sampling data from the at-sea whiting fishery. Steve Ralston provided analysis of pre-recruit survey data collected by the SWFSC and NWFSC/PWCC. Beth Horness provided summary statistics from the NWFSC trawl survey. Vladlena Gertseva provided information on the Oregon historical catch reconstruction. A review from Stacey Miller noticeably improved the quality of the document.

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## **10. Tables**

Table 1. Recent trend in estimated total canary rockfish catch and commercial landings (mt) relative to management guidelines.

Year	ABC (mt)	OY (mt)	Commercial landings (mt) <sup>1</sup>	Total Catch (mt)
1999	1,045 <sup>2</sup>	857 <sup>2</sup>	666.3	898.7
2000	287	200	55.7	199.8
2001	228	93	42.6	133.0
2002	228	93	69.9	120.5
2003	272	44	75.8	127.5
2004	256	47.3	49.3	85.0
2005	270	46.8	10.9	59.0
2006	279	47	7.7	60.0
2007	172	44	12.1	46.2
2008	179	44	8.2	41.9
2009	937	105	11.7	38.0
2010	940	105	14.3	81.8

<sup>1</sup>Excludes all at-sea whiting, recreational and research catches.

<sup>2</sup>Includes the Columbia and Vancouver INPFC areas only.

Table 2. Summary of data sources available in 2009. “X” denotes data used in 2009, “N” denotes new data for this update.

1	1	1	1	1	1	1
9	9	9	9	9	9	
1	2	3	5	6	6	
6	8	2	0	6	8	
-	-	-	-	-	-	
2	3	4	6	6	7	
7	1	9	5	7	2	
<hr/>						
<b>Catches</b>						
S. CA trawl	X	X	X	X	X	X
N. CA trawl	X	X	X	X	X	X
OR trawl		X	X	X	X	X
WA trawl	N	N	N	N	N	N
S. CA non-trawl		X	X	X	X	X
N. CA non-	N	N	N	N	N	N
OR/WA non-trl				X	X	X
S. CA Rec.			X	X	X	X
N. CA Rec.		X	X	X	X	X
OR/WA Rec.		X	X	X	X	X
At-sea whiting				X	X	X
Foreign	X	X	X	X	X	X
Research	X		X		X	
WCGOP		X		X	X	X
<hr/>						
<b>Fishery Data</b>						
<u>Age</u>						
S. CA trawl	X	X	X	X	X	X
N. CA trawl	X	X	X	X	X	X
OR trawl	X	X	X	X	X	X
WA trawl	X	X	X	X	X	X
OR/WA non-trl				X	X	X
WCGOP					X	X
At-sea whiting					X	X
<u>Length</u>						
At-sea whiting					X	X
S. CA trawl		X	X	X	X	X
N. CA trawl		X	X	X	X	X
OR trawl	X	X	X	X	X	X
WA trawl	X	X	X	X	X	X
S. CA non-trawl		X	X	X	X	X
N. CA non-		X	X	X	X	X
OR/WA non-trl		X		X	X	X
S. CA Rec.		X	X	X	X	X

Table 2. Continued. Summary of data sources available in 2009. "X" denotes data used in 2007, "N" denotes new data for this update.

1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	0
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0
16	28	32	50	66	68	73	7	7	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	1		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0							
27	31	49	65	67	72	77	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0					
<b>Fishery Data</b>																																												
<i>Length</i>																																												
N. CA Rec.		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	N	N									
OR/WA Rec.		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	N	N									
WCGOP discards																											X	X	X	X	X	X	X	X	N	N								
<b>Survey data</b>																																												
<i>Index</i>																																												
Triennial survey		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X		X												
NWFSC survey																											X	X	X	X	X	X	X	X	N	N								
Pre-recruit index																											X	X	X	X	X	X	X	X	N	N								
<i>Age</i>																																												
Triennial survey		X				X			X			X			X			X		X			X		X			X			X													
NWFSC survey																											X	X	X	X	X	X	X	X	N	N								
<i>Length</i>																																												
Triennial survey		X			X			X			X			X			X		X			X		X		X			X		X													
NWFSC survey																											X	X	X	X	X	X	X	X	N	N								
<b>For comparison</b>																																												
PGCT hook-and-line																											X	X																
YOY core area																			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
NWFSC Hook and Line																											X	X	X															
N. CA trawl CPUE		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										
OR/WA Rec.																											X	X	X															
N. CA Rec. CPFV CPUE		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										

Table 3. Summary of sampling used in the calculation of biomass indices for the shelf trawl surveys.

Year	Triennial		NWFSC	
	Number of tows	Positive tows	Number of tows	Positive tows
1980	314	77	NA	NA
1983	493	185	NA	NA
1986	484	169	NA	NA
1989	452	93	NA	NA
1992	431	69	NA	NA
1995	450	43	NA	NA
1998	479	86	NA	NA
2001	474	74	NA	NA
2003	NA	NA	524	50
2004	383	63	463	42
2005	NA	NA	619	56
2006	NA	NA	622	32
2007	NA	NA	650	48
2008	NA	NA	649	36
2009	NA	NA	651	33
2010	NA	NA	665	51

Table 4. Summary of data used to produce NWFSC survey length and age-at-length frequencies

Year	Length data		Age-at-length data	
	Number of Samples	Number of fish	Number of samples	Number of Fish
2003	50	423	202	262
2004	37	482	186	254
2005	53	534	182	234
2006	32	623	178	246
2007	48	673	254	496
2008	36	799	257	434
2009	33	308	157	236
2010	51	495	221	345

Table 5. Summary of fixed biological parameters used in this stock assessment

Quantity	Value	Source
Natural mortality	0.06	All canary assessments since 1994, males and females < age 6, with a linear ramp to an estimated value for females age 14+.
Weight-length coefficient ( <i>a</i> )	0.0000155	2005 assessment, pooled over both sexes
Weight-length exponent ( <i>b</i> )	3.03	from fishery and survey data combined.
Length at 50% maturity	40.5	2005 assessment Oregon and Washington trawl fisheries sampled during fall and winter months only.
Maturity logistic slope	-0.25	
Fecundity eggs/gram intercept	1.0	No fecundity relationship available, so weight is assumed to be a reasonable proxy.
Fecundity slope	0.0	

Table 6. Total catches (mt) of canary rockfish by fleet used in the assessment model. Foreign catches are included in state trawl fisheries. See text for description of sources.

Year	S. CA trawl	N. CA trawl	Oregon trawl	WA trawl	S. CA non- trawl	N. CA non- trawl	OR- WA non- trawl	S. CA rec.	N. CA rec.	OR/WA rec	At-sea whiting bycatch	Research catches
1916	0	10.63	0	0	0	26.31	2.79	0	0	0	0	0
1917	0	16.13	0	0	0	42.72	2.93	0	0	0	0	0
1918	0	16.4	0	0	0	44.9	3.07	0	0	0	0	0
1919	0	13.28	0	0	0	25.31	3.22	0	0	0	0	0
1920	0	13.2	0	0	0	27.56	3.36	0	0	0	0	0
1921	0	10.01	0	0	0	25.07	3.5	0	0	0	0	0
1922	0	8.95	0	0	0	23.25	3.65	0	0	0	0	0
1923	0	11.14	0	0	0	27.49	3.79	0	0	0	0	0
1924	0	5.89	0	0	0	34.46	3.93	0	0	0	0	0
1925	0	3.74	0	0	0	43.04	4.08	0	0	0	0	0
1926	0	12.58	0	0	0	49.92	4.22	0	0	0	0	0
1927	0	15.54	0	0	0	40.52	4.33	0	0	0	0	0
1928	0	19.16	8.16	0	0	34.99	7.23	0	0	0	0	0
1929	0	34.55	14.19	0	0	23.92	12.37	0	1.29	0	0	0
1930	0	29.84	13.14	0	0	34.09	11.28	0	2.09	0	0	0
1931	0	41.45	10.06	0	0	33.12	9.06	0	3.14	0	0	0
1932	0	28.35	0.8	0.04	0	27.4	2.88	0	4.19	0	0	0
1933	0	38.45	0.49	0	0	10.97	4.75	0	5.23	0	0	0
1934	0	33	0.02	0.3	0	15.27	5.12	0	6.28	0	0	0
1935	0	33.72	0.39	2.3	0	23.17	4.6	0	7.33	0	0	0
1936	0	20.21	1.42	2.96	0	20.92	11	0	8.38	0	0	0
1937	0	30.8	2.78	2.64	0	13.28	13.1	0	9.99	0	0	0
1938	0	31.36	0	3.9	0	13.62	12.93	0	9.8	0	0	0
1939	0	41.59	3.95	4.09	0	12.96	7.36	0	8.58	0	0	0
1940	0	33.96	90.98	9.05	0	9.52	16.31	0	12.18	0	0	0
1941	0	26.94	140.06	3.39	0	12.32	21.82	0	11.14	0	0	0
1942	0	6.48	263.08	65.81	0	9.23	30.31	0	12.09	0	0	0
1943	0	32.1	919.69	212.71	0	7.62	75.02	0	13.04	0	0	0
1944	0	133.92	1613.87	88.4	0	28.63	19.29	0	13.99	0	0	0
1945	0	304.19	2490.17	926.43	0	69.7	12.3	0	14.94	0	0	0
1946	0	275.87	1533.24	467.02	0	71.77	15.11	0	15.89	0	0	0
1947	0	110.71	955.81	243.97	0	16.42	7.64	0	8.97	0	0	0
1948	0	114.62	681.06	396.17	0	32.11	12.57	0	18.11	0	0	0
1949	0	96.72	589.71	481.83	0	12.42	8.38	0	23.42	0	0	0
1950	0	92.93	617.6	463.03	0	10.06	7.79	0	28.53	0	0	0
1951	0	199.38	568.18	387.38	0	16.32	5.99	0	31.99	0	0	0
1952	0	134.15	588.55	369.45	0	12.33	5.71	0	28.55	0	0	0
1953	0	134.01	616.88	160.2	0	7.17	2.98	0	25.07	0	0	0
1954	0	90.29	783.29	229.79	0	17.49	3.48	0	33.86	0	0	0
1955	0	100.28	788.93	216.84	0	4.12	4.31	0	43.75	0	0	0
1956	0	99.01	1168.75	207.15	0	6.36	2.75	0	49.41	0	0	0
1957	0	114.58	1217.38	171.37	0	6.88	5.96	0	42.61	0	0	0
1958	0	147.85	831.98	216.94	0	9.02	1.19	0	65.93	0	0	0
1959	0	108.66	910.93	242.52	0	6.46	2.45	0	52.38	0	0	0
1960	0	83.92	1085.39	219.31	0	8.97	1.63	0	41.37	0	0	0
1961	0	66.84	985.01	260.34	0	6.36	4.52	0	30.22	0	0	0
1962	0	66.25	1151.08	362.74	0	9.39	4.13	0	36.8	0	0	0

Table 6. Continued. Total catches (mt) of canary rockfish by fleet used in the assessment model.

Year	S. CA trawl	N. CA trawl	Oregon trawl	WA trawl	S. CA non- trawl	N. CA non- trawl	OR- WA non- trawl	S. CA rec.	N. CA rec.	OR/WA rec	At-sea whiting bycatch	Research catches
1963	0	90.9	662.01	292.02	0	8.25	3.7	0	39.79	0	0	0
1964	0	59.74	1009.03	215.56	0	7.09	8.25	0	38.2	0	0	0
1965	0	80.37	823.58	480.38	0	8.73	16.79	0	57.6	0	0	0
1966	0	59.46	923.56	729.91	0	6.57	17.36	0	65.34	0	0	0
1967	0	81.41	133.16	414.09	0	7.53	31.09	0	70.75	0	0	0
1968	0	77.62	854.16	671.26	0	4.8	31.89	0	76.65	0	0	0
1969	2.28	201.51	261.7	558.87	3.2	15.82	45.52	0	82.16	0	0	0
1970	3.02	215.09	570.03	472.82	3.6	8.4	33.61	0	104.22	0	0	0
1971	1.67	328.87	759.29	454.59	4.65	16.54	38.23	0	93.06	0	0	0
1972	3.32	420.27	716.27	163	5.83	35.12	62.93	0	121.34	0	0	0
1973	5.04	697.64	889.66	146.81	7.87	11.73	66.9	0	141.51	0	0	0
1974	3.92	551.04	546.11	480.92	9.89	40.22	73.59	0	153.15	0	0	0
1975	5.06	539.51	388.43	575.07	10.93	25.11	45.08	0	150.16	4.01	0	0
1976	5.63	524	238.77	454.59	10.83	39.32	52.49	0	156.59	2.11	0	0
1977	5.13	456.35	595.35	991.19	9.99	49.67	57.1	0	149.55	4.47	0	11.66
1978	0	655.43	1790.1	1126.86	15.02	131.35	136.81	0	144.37	10.3	0	0
1979	4.36	311.05	1300.09	1118.76	22.92	106.04	239.32	0	165.42	4.86	0	0
1980	10.38	433.41	2879.89	945.63	17.21	78.8	183.14	74.36	86.37	34.98	0	5.31
1981	34.18	494.01	1883.83	514.45	40.14	164.77	160.46	35.05	118.04	48.89	0	0
1982	0.9	797.71	3635.34	435.11	37.82	10.68	262.09	34.33	241.28	44.47	0	0
1983	7.39	499.24	3412.49	650.8	47.41	10.04	320.1	11.63	93.99	6.82	0	10.49
1984	1.8	414.82	1289.2	612.87	32.35	20.88	210.46	31.77	75.66	26.65	0	0
1985	6.98	316.25	1071.19	1037.98	29.74	82.1	213.19	43.47	120.33	63.37	0	0
1986	0.81	166.16	1006.99	899.06	12.37	43.98	206.26	61.4	165.45	24.21	0	11.78
1987	0	209.24	1491.39	1016.63	20.1	23.78	160	57.02	168.13	34.34	0	0
1988	0.28	223.62	1576.42	979.31	21.64	31.73	0	46.59	137.65	56.59	0	0
1989	5.13	178.43	1573.63	1208.85	87.48	129.52	0	29.71	85.89	31.56	0	5.1
1990	0.95	326.72	1029.44	1099.48	39.83	180.05	17.35	10.02	61.34	38.43	0	0
1991	0.45	148.99	1776.39	971.64	69.21	92.36	27.91	10.02	61.34	43.75	5.06	0
1992	2.21	223.75	1423.29	825.03	19.24	107.82	152.43	10.02	61.34	38.43	1.81	1.17
1993	4.91	85.25	1513.8	289.81	14.07	94.22	116.69	0	64.82	51.07	0.72	0
1994	0.33	126.13	644.15	149.54	13.03	82.8	104.87	0	53.46	38.78	4.83	0
1995	29.44	109.56	548.61	161.15	35.22	79.31	118.68	1.23	68.33	43.53	0.31	1.07
1996	11.39	206.97	758.21	189.85	31.4	104.98	166.36	2.49	60.59	25.24	1.35	0
1997	4.14	170.64	589.85	203.44	8.43	96.29	254.41	1.75	100.85	46.68	3.63	0
1998	4.05	154.93	716.05	203.02	8.73	71.53	250.13	1.14	25.46	53.49	5.47	0.97
1999	1.88	102.77	387.85	139.97	2.93	33.84	123.96	2.81	62.05	35.02	5.63	0
2000	0.17	12.45	38.36	32.7	0.87	7.18	10.25	0.41	76.64	18.46	2.35	0
2001	0.11	10.76	32.57	19.65	0.48	6.08	11.02	0	33.37	13.34	4.05	1.61
2002	3.65	16.25	27.71	44.41	0.01	0.23	5.57	0.21	6	11.13	5.24	0.13
2003	3.14	3.90	13.24	73.81	0.00	0.01	1.17	0.06	18.05	12.1	0.93	1.08
2004	1.31	1.98	8.30	44.04	0.05	0.02	5.54	1.48	9.11	5.76	5.22	2.24
2005	2.84	6.26	22.14	10.04	0.03	0.04	1.40	1.49	2	6.82	1.44	4.54
2006	1.99	4.55	15.97	5.66	0.11	0.00	0.81	5.73	12.3	3.98	1.09	7.78
2007	8.24	3.41	10.77	4.21	0.00	0.00	0.33	3.47	7.44	3.78	2.00	2.5
2008	1.21	2.83	10.72	3.69	0.01	0.00	4.26	2.20	4.80	3.28	5.96	2.9
2009	0.65	1.61	7.24	4.75	0.00	0.01	3.45	3.55	7.65	3.50	5.05	0.5
2010	0.92	2.20	8.89	8.78	0.02	0.01	10.17	7.23	15.67	20.90	5.22	1.82

Table 7. Input and effective sample sizes used for tuning the composition data in the base model.

Type of data	Fleet	Input adjustment	Average input after adjustment	Average effective N	Harmonic mean effective N
Length	S. Cal. trawl	0.90	13.97	14.08	5.80
	N. Cal. trawl	1.00	63.46	64.19	40.03
	OR trawl	1.00	130.77	192.224	91.14
	WA trawl	1.00	99.70	215.12	101.51
	S. Cal. non-trawl	0.82	46.49	48.07	8.95
	N. Cal. non-trawl	1.00	73.20	112.04	11.10
	OR-WA non-trawl	1.00	24.26	51.67	11.58
	S. Cal. rec	0.88	123.59	124.28	54.19
	N. Cal. rec	0.82	78.78	79.94	44.63
	OR-WA rec	0.90	90.60	106.52	28.92
	At-sea hake fishery	0.73	134.33	138.39	72.96
	NWFSC trawl survey	1.00	86.88	123.13	97.84
	Triennial survey (1980-1992)	1.00	167.15	253.87	153.04
	Triennial survey (1995-2004)	1.00	97.34	115.34	67.97
Age	S. Cal. trawl	1.00	6.73	7.65	3.90
	N. Cal. Trawl	0.98	51.23	51.86	7.54
	OR trawl	1.00	126.74	203.17	123.99
	WA trawl – WDFW error	1.00	64.30	85.88	14.25
	WA trawl – CAP error	1.00	68.49	115.41	85.63
	OR-WA non-trawl	1.00	8.10	21.85	15.64
	At-sea hake fishery	0.36	64.29	73.35	40.23
	NWFSC trawl survey	1.00	4.71	6.34	1.80
	Triennial survey (1980-1992)	1.00	6.08	8.17	2.46
	Triennial survey (1995-2004)	0.90	5.39	5.65	2.44

Table 8. Adjusted mean input standard errors and root-mean-squared error (RMSE) of fits to index data used to tune the base model. ~95% confidence interval intersection is reported as number of predictions inside the interval/number of data points.

Fleet	Additional variance		
	added	Mean input standard error after adjustment	RMSE
NWFSC trawl survey	0.5	0.77	0.62
Triennial survey (1980-1992)	0.5	0.64	0.72
Triennial survey (1995-2004)	0.5	0.73	0.22
Pre-recruit index	0.93	0.97	0.92

Table 9. Description of model parameters in the base-case assessment model.

Parameter	Number estimated	Bounds (low, high)	Prior (Mean, SD)
Natural mortality ( $M$ , male and female to age 6)	-	NA	Fixed at 0.06
Natural mortality ( $M$ , female age 14+, as exp. offset)	1	(-3,3)	Uniform
<u>Stock and recruitment</u>			
$\ln(R_0)$	1	(5,11)	Uniform
Steepness ( $h$ )	-	NA	Fixed at 0.511
$\sigma_r$	-	NA	Fixed at 0.50
Ln(Recruitment deviations): 1960-2009	50	(-10, 10)	Uniform
<u>Catchability</u>			
$\ln(Q)$ – NWFSC survey	-		Analytic solution
$\ln(Q)$ – Triennial survey (1980-1992)	-		Analytic solution
$\ln(Q)$ – Triennial survey (1995-2004)	-		Analytic solution
$\ln(Q)$ – Pre-recruit survey	-		Analytic solution
<u>Selectivity (double normal)</u>			
<i>Fisheries:</i>			
Length at peak selectivity	25	(20,60)	Uniform
Width of top (as logistic)	-	NA	Fixed at -4.0
Ascending width (as $\exp[\text{width}]$ )	24	(-1,10)	Uniform
Descending width (as $\exp[\text{width}]$ )	7	NA	Fixed at 1.0
Initial selectivity (as logistic)	-	NA	Fixed at -9.0
Final selectivity (as logistic)	23	(-5,5)	Uniform
<i>Surveys:</i>			
Length at peak selectivity	2	(15,66)	Uniform
Width of top (as logistic)	2	(-4,4)	Uniform
Ascending width (as $\exp[\text{width}]$ )	2	(-1,10)	Uniform
Descending width (as $\exp[\text{width}]$ )	-	NA	Fixed at 1.0
Initial selectivity (as logistic)	1	(-5,5)	Fixed at -9.0
Final selectivity (as logistic)	2	(-5,5)	Uniform
<u>Individual growth</u>			
<i>Females:</i>			
Length at age 1	1	(2,10)	Uniform
Length at age 20	1	(45,75)	Uniform
von Bertalanffy $K$	1	(0.01,0.25)	Uniform
CV of length at age 1	1	(0.01,0.25)	Uniform
CV of length at age 20 offset to age 1	1	(-3,3)	Uniform
<i>Males:</i>			
Length at age 1 offset to females	-	NA	Fixed at 0.0
Length at age 20 offset to females	1	(-3,3)	Uniform
von Bertalanffy $K$ offset to females	1	(-3,3)	Uniform
CV of length at age 1 offset to females	1	(-3,3)	Uniform
CV of length at age 20 offset to females	1	(-3,3)	Uniform
Total: 99 + 50 recruitment deviations = 149 estimated parameters			

Table 10. Comparison of summary 2009 and 2011 base-case model results.

Model	2009	2011
Description	Base case	Base case
<b>Convergence</b>		
Maximum gradient component	0.00097	0.00285
Likelihood penalties	0	0
<b>Negative log-likelihoods</b>		
Total	4,963	6,256
Indices	-4.8	3.3
Length-frequency data	2360.5	3093
Age-frequency data	2626.1	3177
Recruitment	-18.8	-16.9
Forecast recruitment	0	0
<b>Select parameters</b>		
<i>Stock-recruit, productivity</i>		
$R_0$	3,335	3,350
Steepness ( $h$ )	0.511	0.511
Female M age 14+	0.097	0.092
<i>Survey catchability and selectivity</i>		
NWFSC survey catchability ( $Q$ )	0.125	0.864
NWFSC survey peak selectivity	48.35	52.31
NWFSC survey width of selectivity top	3.11	2.58
NWFSC survey ascending width	4.60	5.32
NWFSC survey descending width	4	4
NWFSC survey final selectivity	4.83	3.75
1980-1992 Triennial survey catchability ( $Q$ )	0.111	0.249
1995-2004 Triennial survey catchability ( $Q$ )	0.087	0.202
Triennial survey peak selectivity	61.25	60.58
Triennial survey width of selectivity top	-4	-4
Triennial survey ascending width	7.00	6.90
Triennial survey final selectivity	-4.99	-5.00
<i>Individual growth</i>		
Female and male length at age 1	6.639	8.040
Female mean length at age 20	59.844	60.36
Female von Bertalanffy $K$	0.131	0.125
Female CV of length-at-age at age 1	0.134	0.123
Female CV of length-at-age at age 20	0.037	0.036
Male mean length at age 20	52.31	52.53
Male von Bertalanffy $K$	0.17	0.16
Male CV of length-at-age at age 1	0.168	0.239
Male CV of length-at-age at age 20	0.04	0.06
<b>Management quantities</b>		
$SB_0$	25,993	27,846
$SB_{2009}$	6,170	5997
$SB_{2011}$	NA	6458
2009 Depletion	0.217	0.215
2011 Depletion	NA	0.232
2010 SPR	NA	0.883
2010 Exp. rate: yield/age 5+ Biomass	NA	0.0054

Table 11. Canary rockfish growth parameter estimates and standard deviation.

Parameter	Value	SD
<i>Females:</i>		
Length at age 1	8.040	0.356
Length at age 20	60.36	0.309
von Bertalanffy $K$	0.125	0.00215
CV of length at age 1	0.123	0.00820
CV of length at age 20	0.036	NA
<i>Males:</i>		
Length at age 1	8.040	NA
Length at age 20	52.53	NA
von Bertalanffy $K$	0.162	NA
CV of length at age 1	0.239	NA
CV of length at age 20	0.059	NA

Table 12. Canary rockfish catchability and productivity parameter estimates and standard deviation.

Parameter	Value	SD
<i>Catchability:</i>		
NWFSC survey catchability ( $Q$ )	0.868	NA
1980-1992 triennial survey catchability ( $Q$ )	0.249	NA
1995-2004 triennial survey catchability ( $Q$ )	0.202	NA
<i>Productivity:</i>		
$R_0$	3,350	116
Steepness ( $h$ )	0.511	NA
Female natural mortality ( $M$ ) age 14+	0.092	NA

Table 13. Time-series of population estimates from the base-case model.

Year	Total biomass	Spawning biomass		Age-0 recruits	Total catch	Relative SPR	Relative exploitation
	(mt)	(mt)	Depletion	(1000s)	(mt)	rate	
1916	72,003	27,846	100.00%	3,350	39.73	99.05%	0.055%
1917	71,964	27,830	99.94%	3,349	61.78	98.52%	0.086%
1918	71,904	27,806	99.85%	3,348	64.37	98.46%	0.090%
1919	71,844	27,781	99.76%	3,348	41.81	99.00%	0.058%
1920	71,807	27,765	99.71%	3,347	44.12	98.94%	0.061%
1921	71,770	27,750	99.65%	3,347	38.58	99.07%	0.054%
1922	71,740	27,737	99.61%	3,346	35.85	99.14%	0.050%
1923	71,714	27,726	99.57%	3,346	42.42	98.98%	0.059%
1924	71,683	27,713	99.52%	3,346	44.28	98.93%	0.062%
1925	71,652	27,700	99.48%	3,345	50.86	98.76%	0.071%
1926	71,615	27,686	99.42%	3,345	66.72	98.39%	0.093%
1927	71,564	27,665	99.35%	3,344	60.39	98.55%	0.084%
1928	71,521	27,648	99.29%	3,344	69.54	98.35%	0.097%
1929	71,471	27,627	99.21%	3,343	86.32	97.97%	0.121%
1930	71,407	27,600	99.12%	3,342	90.44	97.84%	0.127%
1931	71,342	27,573	99.02%	3,342	96.83	97.68%	0.136%
1932	71,272	27,544	98.92%	3,341	63.66	98.41%	0.089%
1933	71,238	27,531	98.87%	3,340	59.89	98.51%	0.084%
1934	71,208	27,520	98.83%	3,340	59.99	98.48%	0.084%
1935	71,180	27,510	98.79%	3,340	71.51	98.19%	0.100%
1936	71,141	27,496	98.74%	3,339	64.89	98.33%	0.091%
1937	71,109	27,485	98.70%	3,339	72.59	98.14%	0.102%
1938	71,071	27,471	98.65%	3,339	71.61	98.16%	0.101%
1939	71,035	27,458	98.61%	3,338	78.53	98.03%	0.111%
1940	70,994	27,442	98.55%	3,338	172.00	95.90%	0.242%
1941	70,864	27,384	98.34%	3,336	215.67	94.95%	0.304%
1942	70,698	27,308	98.07%	3,334	387.00	91.53%	0.547%
1943	70,376	27,160	97.53%	3,329	1,260.18	76.90%	1.791%
1944	69,232	26,630	95.63%	3,313	1,898.10	68.06%	2.742%
1945	67,533	25,826	92.75%	3,288	3,817.73	50.50%	5.653%
1946	64,062	24,259	87.12%	3,235	2,378.90	60.65%	3.713%
1947	62,131	23,393	84.01%	3,204	1,343.52	72.90%	2.162%
1948	61,293	23,018	82.66%	3,189	1,254.64	73.96%	2.047%
1949	60,583	22,729	81.62%	3,178	1,212.48	74.46%	2.001%
1950	59,948	22,489	80.76%	3,169	1,219.94	73.99%	2.035%
1951	59,333	22,265	79.96%	3,160	1,209.24	73.67%	2.038%
1952	58,749	22,062	79.23%	3,152	1,138.74	74.72%	1.938%
1953	58,253	21,896	78.63%	3,145	946.31	77.67%	1.624%
1954	57,958	21,807	78.31%	3,141	1,158.20	73.78%	1.998%
1955	57,465	21,627	77.66%	3,134	1,158.23	73.43%	2.016%
1956	56,984	21,450	77.03%	3,126	1,533.43	67.24%	2.691%

Table 13. continued. Time-series of population estimates from the base-case model.

Year	Total biomass (mt)	Spawning biomass (mt)	Depletion	Age-0 recruits (1000s)	Total catch (mt)	SPR	Relative exploitation rate
1957	56,156	21,104	75.79%	3,112	1,558.78	66.55%	2.776%
1958	55,332	20,753	74.53%	3,096	1,272.91	70.23%	2.300%
1959	54,806	20,553	73.81%	3,087	1,323.4	69.47%	2.415%
1960	54,248	20,331	73.01%	3,168	1,440.59	67.52%	2.656%
1961	53,608	20,058	72.03%	3,873	1,353.29	68.85%	2.524%
1962	53,069	19,835	71.23%	3,043	1,630.39	64.37%	3.072%
1963	52,309	19,504	70.04%	2,469	1,096.67	72.56%	2.097%
1964	52,117	19,430	69.77%	2,271	1,337.87	68.13%	2.567%
1965	51,704	19,243	69.1%	2,360	1,467.45	65.89%	2.838%
1966	51,145	19,034	68.35%	2,831	1,802.20	60.86%	3.524%
1967	50,259	18,704	67.17%	6,306	738.03	79.12%	1.468%
1968	50,314	18,868	67.76%	2,802	1,716.38	61.39%	3.411%
1969	49,488	18,591	66.76%	2,261	1,171.06	69.61%	2.366%
1970	49,289	18,555	66.63%	2,466	1,410.79	64.63%	2.862%
1971	48,908	18,366	65.96%	3,509	1,696.90	60.08%	3.470%
1972	48,262	18,024	64.72%	4,030	1,528.08	61.35%	3.166%
1973	47,783	17,768	63.81%	3,311	1,967.16	54.29%	4.117%
1974	46,911	17,374	62.39%	2,520	1,858.84	55.36%	3.962%
1975	46,228	17,101	61.41%	4,715	1743.36	56.59%	3.771%
1976	45,643	16,909	60.72%	1,740	1,484.33	60.14%	3.252%
1977	45,400	16,832	60.45%	3,366	2,330.46	48.84%	5.133%
1978	44,356	16,388	58.85%	3,663	4,010.24	34.10%	9.041%
1979	41,700	15,208	54.61%	1,658	3,272.82	36.61%	7.849%
1980	39,832	14,476	51.98%	1,481	4,749.48	26.23%	11.924%
1981	36,575	13,138	47.18%	3,442	3,493.82	30.33%	9.553%
1982	34,501	12,368	44.42%	1,682	5,499.73	19.25%	15.941%
1983	30,461	10,769	38.67%	1,145	5,070.40	19.77%	16.646%
1984	26,914	9,338	33.53%	3,876	2,716.46	28.74%	10.093%
1985	25,586	8,929	32.06%	1,189	2,984.60	24.19%	11.665%
1986	23,977	8,413	30.21%	1,391	2,598.47	25.60%	10.837%
1987	22,712	8,005	28.75%	1,868	3,180.63	20.34%	14.004%
1988	20,820	7,298	26.21%	2,041	3,073.83	19.44%	14.764%
1989	18,988	6,588	23.66%	2,208	3,335.30	16.64%	17.565%
1990	16,874	5,740	20.61%	1,836	2,803.61	17.37%	16.615%
1991	15,293	5,103	18.33%	1,975	3,207.12	13.94%	20.972%
1992	13,344	4,272	15.34%	1,271	2,866.54	13.11%	21.481%
1993	11,774	3,589	12.89%	1,315	2,235.36	14.50%	18.986%
1994	10,844	3,157	11.34%	1,570	1,217.92	22.76%	11.231%
1995	10,882	3,168	11.38%	1,188	1,196.44	23.08%	10.995%
1996	10,894	3,246	11.66%	1,286	1,558.83	17.67%	14.308%
1997	10,490	3,181	11.42%	811	1,480.11	17.56%	14.109%

Table 13. continued. Time-series of population estimates from the base-case model.

Year	Total biomass (mt)	Spawning biomass (mt)	Depletion	Age-0 recruits (1000s)	Total catch (mt)	SPR	Relative exploitation rate
1998	10,096	3,130	11.24%	1,161	1,494.97	17.53%	14.808%
1999	9,615	3,026	10.87%	1,262	898.71	28.09%	9.347%
2000	9,641	3,124	11.22%	942	199.84	71.23%	2.073%
2001	10,311	3,483	12.51%	1,825	133.04	80.52%	1.290%
2002	10,994	3,849	13.82%	990	120.54	82.97%	1.096%
2003	11,681	4,196	15.07%	1,348	127.49	82.53%	1.091%
2004	12,330	4,520	16.23%	469	85.05	88.33%	0.690%
2005	13,003	4,834	17.36%	356	59.04	92.28%	0.454%
2006	13,663	5,138	18.45%	820	59.97	91.97%	0.439%
2007	14,260	5,431	19.5%	2,201	46.15	94.09%	0.324%
2008	14,764	5,720	20.54%	656	41.86	94.82%	0.284%
2009	15,258	5,997	21.53%	2,237	37.96	94.91%	0.249%
2010	15,706	6,254	22.46%	1,036	81.83	88.32%	0.521%
2011	16,124	6,458	23.19%	1,869	NA	NA	NA

Table 14. Asymptotic standard deviation estimates for spawning biomass and recruitment.

Year	SD Spawning biomass (mt)	SD Age-0 recruits (1000s)	Year	SD Spawning biomass (mt)	SD Age-0 recruits (1000s)	Year	SD Spawning biomass (mt)	SD Age-0 recruits (1000s)
1916	930	116	1955	862	118	1994	209	311
1917	930	116	1956	860	118	1995	238	269
1918	929	116	1957	856	119	1996	276	287
1919	929	116	1958	853	119	1997	321	228
1920	929	116	1959	851	119	1998	373	270
1921	929	116	1960	850	2,102	1999	430	285
1922	928	116	1961	848	2,851	2000	490	224
1923	928	116	1962	846	2,045	2001	552	330
1924	928	116	1963	845	1,417	2002	612	206
1925	928	116	1964	844	1,227	2003	670	254
1926	928	116	1965	837	1,311	2004	724	116
1927	927	116	1966	824	1,956	2005	774	109
1928	927	116	1967	798	3,083	2006	819	218
1929	927	116	1968	758	1,887	2007	861	518
1930	927	116	1969	713	1,175	2008	901	252
1931	926	116	1970	668	1,309	2009	938	832
1932	926	116	1971	627	1,976	2010	970	505
1933	926	116	1972	589	2,135	2011	996	956
1934	925	116	1973	550	1,622			
1935	925	116	1974	509	1,140			
1936	925	116	1975	472	848			
1937	925	116	1976	439	587			
1938	924	116	1977	410	499			
1939	924	116	1978	391	450			
1940	924	116	1979	370	355			
1941	923	116	1980	332	331			
1942	922	116	1981	293	361			
1943	921	116	1982	264	311			
1944	916	116	1983	232	295			
1945	909	116	1984	205	394			
1946	899	117	1985	189	327			
1947	892	117	1986	176	336			
1948	886	117	1987	165	405			
1949	882	117	1988	157	394			
1950	878	117	1989	154	382			
1951	875	118	1990	154	334			
1952	872	118	1991	160	347			
1953	869	118	1992	170	279			
1954	865	118	1993	186	270			

Table 15. Female numbers at age (1000's) predicted by the base case model, 1916-2011.

Age (yr)	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
0	1,675	1,675	1,674	1,674	1,674	1,673	1,673	1,673	1,673	1,672	1,672	1,672	1,672	1,672	1,671	1,671	1,670	1,670	1,670	1,670	1,670	1,670
1	1,577	1,577	1,577	1,577	1,576	1,576	1,576	1,576	1,576	1,575	1,575	1,575	1,575	1,575	1,574	1,574	1,573	1,573	1,573	1,573	1,573	1,572
2	1,485	1,485	1,485	1,485	1,485	1,485	1,484	1,484	1,484	1,484	1,484	1,483	1,483	1,483	1,483	1,483	1,482	1,482	1,481	1,481	1,481	1,481
3	1,399	1,399	1,399	1,399	1,399	1,398	1,398	1,398	1,398	1,397	1,397	1,397	1,397	1,397	1,397	1,396	1,396	1,396	1,395	1,395	1,395	1,395
4	1,317	1,317	1,317	1,317	1,317	1,317	1,317	1,317	1,316	1,316	1,316	1,316	1,316	1,316	1,316	1,315	1,315	1,315	1,314	1,314	1,314	1,314
5	1,241	1,241	1,240	1,240	1,241	1,241	1,240	1,240	1,240	1,239	1,239	1,239	1,239	1,239	1,239	1,238	1,238	1,238	1,238	1,237	1,237	1,237
6	1,168	1,168	1,168	1,168	1,168	1,168	1,168	1,168	1,168	1,167	1,167	1,167	1,167	1,167	1,167	1,166	1,166	1,166	1,165	1,165	1,165	1,164
7	1,100	1,100	1,100	1,099	1,100	1,100	1,100	1,100	1,100	1,099	1,099	1,098	1,098	1,098	1,098	1,098	1,097	1,097	1,097	1,097	1,096	1,096
8	1,032	1,032	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,030	1,030	1,030	1,030	1,030	1,029	1,029	1,029	1,028	1,028	1,028	1,027
9	964	964	963	963	963	963	963	963	963	963	962	962	961	961	961	960	960	960	960	960	960	959
10	897	897	896	896	895	895	895	895	896	896	895	895	894	894	894	893	893	893	893	893	893	892
11	832	831	831	830	830	829	829	829	830	830	829	829	828	828	827	827	827	827	827	827	827	827
12	768	768	767	766	766	765	765	765	765	765	765	765	764	764	763	763	763	763	763	763	763	763
13	706	706	705	705	704	704	703	703	703	703	703	703	703	703	702	701	701	701	701	701	701	701
14	647	647	646	645	645	645	644	644	644	644	644	644	643	643	643	642	642	641	641	641	641	641
15	590	590	589	589	588	588	588	587	587	587	587	587	586	586	586	585	585	585	585	585	584	584
16	538	538	538	537	537	536	536	536	536	535	535	535	535	535	534	533	533	533	533	533	533	533
17	491	491	490	490	490	489	489	489	489	488	488	488	488	487	487	487	486	486	486	486	486	486
18	448	448	447	447	447	446	446	446	446	445	445	445	445	444	444	444	443	443	443	443	443	443
19	409	409	408	408	408	407	407	407	407	406	406	406	406	405	405	405	404	404	404	404	404	404
20	373	373	372	372	372	371	371	371	371	370	370	370	369	369	369	368	368	368	368	368	368	368
21	340	340	340	339	339	339	339	339	338	338	338	338	337	337	337	336	336	336	336	336	336	336
22	310	310	310	310	309	309	309	309	309	309	308	308	308	307	307	307	306	306	306	306	306	306
23	283	283	283	282	282	282	282	282	281	281	281	281	280	280	280	279	279	279	279	279	279	279
24	258	258	258	258	258	257	257	257	257	257	256	256	256	256	255	255	255	255	254	254	254	254
25	236	236	235	235	235	235	235	235	234	234	234	234	234	233	233	233	232	232	232	232	232	232
26	215	215	215	215	214	214	214	214	214	214	213	213	213	213	212	212	212	212	212	212	211	211
27	196	196	196	196	195	195	195	195	195	195	195	194	194	194	194	193	193	193	193	193	193	193
28	179	179	179	179	178	178	178	178	178	178	178	177	177	177	176	176	176	176	176	176	176	176
29	163	163	163	163	163	163	163	163	162	162	162	162	162	161	161	161	161	161	161	161	160	160
30	149	149	149	149	149	148	148	148	148	148	148	148	148	147	147	147	147	147	147	147	146	146
31	136	136	136	136	135	135	135	135	135	135	135	135	135	134	134	134	134	134	134	134	133	133
32	124	124	124	124	124	123	123	123	123	123	123	123	123	123	122	122	122	122	122	122	122	122
33	113	113	113	113	113	113	113	113	113	112	112	112	112	112	112	112	111	111	111	111	111	111
34	103	103	103	103	103	103	103	103	103	102	102	102	102	102	102	102	102	102	102	101	101	101
35	94	94	94	94	94	94	94	94	94	94	94	93	93	93	93	93	93	93	93	93	93	92
36	86	86	86	86	86	86	86	85	85	85	85	85	85	85	85	85	85	85	85	84	84	84
37	78	78	78	78	78	78	78	78	78	78	78	78	78	78	77	77	77	77	77	77	77	77
38	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70
39	65	65	65	65	65	65	65	65	65	65	65	65	65	64	64	64	64	64	64	64	64	64
40	678	678	677	677	676	676	676	675	675	674	674	673	673	672	671	670	669	668	667	667	666	666

Table 15. continued.

Age (yr)	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
0	1,669	1,669	1,669	1,668	1,667	1,665	1,657	1,644	1,618	1,602	1,595	1,589	1,584	1,580	1,576	1,572	1,571	1,567	1,563	1,556	1,548	1,544
1	1,572	1,572	1,572	1,572	1,571	1,570	1,568	1,560	1,548	1,523	1,509	1,502	1,497	1,492	1,488	1,484	1,481	1,479	1,476	1,472	1,465	1,458
2	1,481	1,481	1,481	1,480	1,479	1,478	1,476	1,469	1,458	1,435	1,421	1,414	1,409	1,405	1,401	1,398	1,395	1,393	1,390	1,386	1,380	
3	1,395	1,395	1,394	1,394	1,394	1,394	1,393	1,392	1,390	1,384	1,373	1,351	1,338	1,332	1,327	1,323	1,320	1,316	1,313	1,312	1,309	1,306
4	1,314	1,313	1,313	1,313	1,313	1,313	1,312	1,312	1,311	1,309	1,303	1,293	1,272	1,259	1,254	1,250	1,246	1,242	1,239	1,236	1,235	1,231
5	1,236	1,236	1,236	1,236	1,236	1,236	1,235	1,235	1,234	1,233	1,232	1,226	1,216	1,196	1,184	1,179	1,175	1,171	1,167	1,163	1,161	1,158
6	1,164	1,164	1,164	1,163	1,163	1,163	1,162	1,161	1,159	1,159	1,158	1,151	1,142	1,123	1,112	1,107	1,103	1,098	1,094	1,091	1,087	
7	1,095	1,095	1,095	1,094	1,094	1,094	1,092	1,090	1,087	1,086	1,088	1,088	1,087	1,081	1,071	1,053	1,043	1,038	1,033	1,028	1,024	1,020
8	1,027	1,026	1,026	1,025	1,025	1,022	1,019	1,012	1,011	1,015	1,016	1,017	1,015	1,008	999	983	973	968	962	957	953	
9	959	959	958	957	957	956	952	947	936	933	938	941	943	943	941	935	928	912	903	896	890	885
10	892	892	891	890	889	888	883	875	859	855	860	864	868	869	867	863	855	840	829	822	818	
11	826	826	825	824	823	822	815	805	783	777	782	786	791	794	794	795	789	782	766	755	751	
12	762	762	762	761	759	757	748	737	710	701	705	709	714	717	720	721	724	722	717	707	692	684
13	701	700	700	699	697	695	685	672	643	631	632	635	639	643	646	649	653	653	652	644	634	623
14	641	641	641	640	638	635	625	611	580	566	565	566	569	573	576	580	585	586	586	580	573	567
15	584	584	584	583	582	579	568	554	522	507	504	503	504	507	510	514	519	521	522	518	513	509
16	533	533	532	531	530	527	517	502	472	456	451	448	448	449	451	454	460	462	464	461	457	456
17	485	485	485	484	483	480	471	456	426	411	405	401	399	398	399	402	406	409	411	409	406	406
18	443	442	442	442	440	438	428	414	386	371	364	359	356	354	354	355	359	361	363	362	360	360
19	403	403	403	402	401	399	390	377	351	336	329	323	319	316	315	315	317	319	321	320	318	319
20	368	368	368	367	366	364	355	343	318	304	297	292	287	284	281	280	281	282	283	282	281	281
21	335	335	335	334	333	331	324	312	289	276	269	264	259	255	252	250	250	249	250	249	247	248
22	306	306	305	305	304	302	295	284	263	251	244	239	235	230	227	224	223	222	221	219	218	219
23	279	279	279	278	277	275	269	259	239	228	222	217	212	208	205	202	200	198	197	194	192	192
24	254	254	254	253	252	251	245	236	218	207	202	197	193	189	185	182	180	177	176	173	170	170
25	232	232	232	231	230	229	223	215	198	189	184	179	175	171	168	165	162	160	157	154	151	150
26	211	211	211	211	210	208	203	195	181	172	167	163	159	156	152	149	147	144	141	138	135	133
27	193	193	192	192	191	190	185	178	165	157	152	148	145	141	138	135	133	130	128	124	121	119
28	176	176	175	175	174	173	169	162	150	143	139	135	132	129	126	123	121	118	115	112	109	107
29	160	160	160	160	159	158	154	148	137	130	126	123	120	117	114	112	110	107	105	101	98	96
30	146	146	146	146	145	144	141	135	125	119	115	112	109	107	104	102	100	97	95	92	88	86
31	133	133	133	133	132	131	128	123	114	108	105	102	100	97	95	93	91	88	86	83	80	78
32	122	121	121	121	120	117	112	104	99	96	93	91	89	86	84	83	80	78	76	73	71	
33	111	111	111	110	110	109	106	102	95	90	87	85	83	81	79	77	75	73	71	69	66	64
34	101	101	101	101	100	100	97	93	86	82	79	77	75	74	72	70	68	67	65	62	60	58
35	92	92	92	92	91	91	89	85	79	75	72	71	69	67	65	64	62	61	59	57	55	53
36	84	84	84	84	83	83	81	78	72	68	66	64	63	61	60	58	57	55	54	52	50	48
37	77	77	77	76	76	74	71	65	62	60	59	57	56	54	53	52	50	49	47	45	44	
38	70	70	70	70	69	69	67	64	60	57	55	53	52	51	50	48	47	46	45	43	41	40
39	64	64	64	64	63	63	61	59	54	52	50	49	48	46	45	44	43	42	41	39	38	36
40	665	665	664	662	659	654	638	612	566	537	521	507	494	482	469	458	448	435	423	407	390	378

Table 15. continued.

Age (yr)	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
0	1,584	1,937	1,521	1,234	1,135	1,180	1,416	3,153	1,401	1,131	1,233	1,755	2,015	1,656	1,260	2,357	870	1,683	1,831	829	741	1,721
1	1,454	1,492	1,824	1,433	1,162	1,069	1,111	1,333	2,970	1,320	1,065	1,161	1,652	1,898	1,559	1,187	2,220	819	1,585	1,725	781	697
2	1,373	1,369	1,405	1,718	1,349	1,095	1,007	1,047	1,256	2,797	1,243	1,003	1,094	1,556	1,787	1,468	1,118	2,091	771	1,493	1,624	735
3	1,299	1,293	1,289	1,323	1,618	1,271	1,031	948	986	1,182	2,634	1,170	944	1,030	1,465	1,683	1,383	1,052	1,969	726	1,406	1,529
4	1,229	1,223	1,217	1,214	1,245	1,522	1,196	970	892	927	1,112	2,476	1,100	888	968	1,377	1,581	1,299	988	1,849	682	1,316
5	1,156	1,154	1,150	1,144	1,140	1,170	1,429	1,121	910	836	868	1,040	2,317	1,028	828	902	1,283	1,473	1,210	920	1,719	631
6	1,085	1,084	1,083	1,078	1,073	1,069	1,095	1,337	1,049	850	781	809	970	2,156	954	768	836	1,189	1,364	1,118	849	1,576
7	1,017	1,016	1,016	1,015	1,011	1,005	1,000	1,024	1,251	980	793	727	753	900	1,994	882	710	773	1,098	1,253	1,027	774
8	950	947	948	947	946	942	935	930	954	1,162	910	735	672	695	826	1,831	811	652	709	998	1,139	924
9	882	879	878	877	876	876	871	864	863	881	1,073	838	675	616	632	753	1,671	740	594	635	893	1,004
10	814	810	808	805	807	807	804	797	797	790	808	982	764	614	556	572	682	1,515	667	523	558	767
11	746	742	739	735	736	736	734	728	731	722	719	733	886	690	550	498	513	613	1,347	575	451	465
12	680	675	672	666	667	666	664	658	663	655	652	647	656	795	613	488	443	458	538	1,141	488	366
13	615	610	606	600	600	599	596	589	595	589	587	582	574	584	701	540	431	393	398	449	955	388
14	556	548	544	537	537	535	532	524	530	525	525	521	513	508	512	614	474	380	339	327	372	748
15	503	492	486	479	478	476	472	464	470	464	465	463	456	452	443	446	535	416	325	275	269	289
16	451	445	435	426	426	423	419	412	416	410	411	410	405	401	393	385	389	470	355	264	227	208
17	403	398	393	382	379	376	372	365	369	363	364	362	358	356	348	341	336	341	402	287	217	175
18	358	355	351	344	339	334	330	323	327	321	322	320	316	314	308	303	298	295	291	323	236	168
19	318	315	313	307	305	298	293	287	290	285	285	283	279	277	272	268	264	261	252	234	267	183
20	281	279	278	273	272	268	262	255	257	252	252	250	247	245	240	236	234	232	223	202	193	207
21	248	247	246	242	242	239	235	227	228	224	224	222	218	216	212	208	206	205	198	179	167	150
22	219	218	217	215	215	213	210	204	204	199	199	197	193	191	187	184	182	181	175	159	148	130
23	193	192	192	190	190	189	187	182	183	178	176	175	171	169	165	162	160	160	155	141	132	115
24	170	169	169	167	168	167	166	162	164	160	158	155	152	150	146	144	142	141	137	124	117	103
25	150	149	149	147	148	148	147	144	146	143	142	139	135	133	130	127	125	125	121	110	103	91
26	132	131	131	130	131	130	129	127	129	127	126	125	121	118	115	113	111	110	107	97	91	81
27	118	116	115	114	115	115	114	113	114	113	113	111	109	106	102	100	98	98	94	86	81	71
28	105	103	102	101	101	101	99	101	100	100	99	97	95	91	89	87	87	84	76	71	63	
29	94	92	91	89	89	89	88	87	89	88	89	88	86	85	82	79	78	77	74	67	63	56
30	84	82	81	79	79	78	78	77	79	78	78	77	76	73	71	69	68	66	60	56	50	
31	76	74	72	71	70	69	69	68	69	68	69	69	68	67	65	64	62	61	59	53	50	44
32	69	67	65	63	62	61	61	60	61	60	61	61	60	59	58	57	56	55	52	47	44	39
33	62	60	59	57	56	55	54	53	54	53	54	54	53	53	51	50	50	49	47	42	39	35
34	57	55	53	51	50	49	48	47	48	47	47	47	47	46	45	45	44	44	42	38	35	31
35	51	50	48	46	45	44	43	42	42	41	42	41	41	40	39	39	39	38	34	32	28	
36	47	45	44	42	41	40	39	38	38	37	37	36	36	35	35	35	34	33	30	28	25	
37	43	41	40	38	37	36	35	34	34	33	33	32	32	32	31	31	30	30	27	25	22	
38	39	37	36	35	34	33	32	30	30	29	29	29	28	28	27	27	27	26	24	22	20	
39	35	34	33	31	31	30	29	28	27	26	26	25	24	24	24	24	23	21	20	18		
40	365	351	338	324	315	303	292	279	276	264	259	251	241	233	223	215	209	205	196	176	165	146

Table 15. continued.

Age (yr)	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
0	841	572	1,938	594	696	934	1,021	1,104	918	988	635	657	785	594	643	405	580	631	471	913	495	674
1	1,621	792	539	1,825	560	655	880	961	1,040	864	930	598	619	739	559	605	382	547	594	443	860	466
2	657	1,526	746	508	1,719	527	617	828	905	979	814	876	564	583	696	527	570	359	515	559	418	809
3	692	618	1,437	702	478	1,617	496	581	779	852	921	766	825	531	549	655	496	537	338	485	527	393
4	1,432	647	580	1,347	656	446	1,507	463	543	730	798	863	718	773	497	514	613	465	503	317	455	496
5	1,216	1,312	602	538	1,234	599	406	1,374	424	501	672	735	795	664	710	458	469	565	428	464	296	427
6	577	1,098	1,211	553	485	1,110	536	363	1,239	386	453	609	666	726	598	642	407	424	512	390	430	277
7	1,431	516	1,004	1,105	495	434	987	477	324	1,110	344	404	546	603	645	531	562	362	381	466	361	401
8	695	1,262	462	904	978	439	382	868	416	283	967	299	355	487	526	556	455	487	321	346	429	335
9	817	598	1,094	408	786	856	379	329	735	352	237	801	252	309	414	436	462	379	422	292	318	396
10	870	679	496	943	347	674	718	316	267	597	279	185	640	213	256	329	350	369	321	384	268	293
11	650	696	538	417	780	290	546	577	246	208	443	203	138	523	172	197	257	269	306	292	352	245
12	387	502	529	442	337	637	228	425	430	184	146	304	143	110	416	130	150	192	220	278	267	321
13	300	291	370	427	351	270	489	173	307	314	124	95	205	111	86	309	98	111	156	200	253	242
14	314	221	210	295	335	278	204	364	122	220	204	78	62	156	87	64	231	71	89	141	181	229
15	602	229	157	166	229	263	208	150	254	86	141	127	50	47	122	64	48	169	57	80	127	163
16	232	437	162	124	129	180	196	152	105	180	55	87	81	38	37	91	48	35	136	52	73	115
17	167	168	309	128	96	101	134	144	106	74	114	34	55	61	30	28	68	36	28	123	47	65
18	141	122	119	245	100	76	75	99	101	75	47	71	22	42	48	22	21	51	29	25	111	42
19	135	102	86	94	190	79	57	56	69	72	48	29	45	16	33	37	17	16	41	26	23	100
20	147	98	73	68	74	150	59	42	39	49	46	30	19	34	13	25	28	13	13	37	24	21
21	166	107	70	58	53	58	113	44	30	28	32	29	19	14	27	10	19	21	11	12	34	21
22	121	121	76	55	45	42	44	84	31	21	18	20	19	15	11	21	8	15	17	9	10	30
23	105	88	86	61	44	36	32	33	60	22	14	12	13	14	12	9	16	6	12	16	9	9
24	93	76	63	69	48	35	27	24	23	44	15	9	7	10	11	9	7	12	5	11	14	8
25	83	68	55	50	54	38	26	20	17	17	29	9	6	6	8	9	7	5	10	4	10	13
26	74	61	49	44	40	43	29	20	15	13	11	18	6	4	5	6	7	5	4	9	4	9
27	65	54	43	39	35	32	33	22	14	11	8	7	12	5	4	4	5	5	5	4	8	4
28	58	48	39	35	31	28	24	25	16	11	7	5	5	9	4	3	3	4	4	4	8	
29	51	42	34	31	28	25	21	18	18	12	7	5	3	4	7	3	2	2	3	4	4	
30	45	37	30	27	25	22	19	16	13	13	8	5	3	3	3	6	2	2	2	3	4	
31	40	33	27	24	22	20	17	14	12	10	9	5	3	2	2	2	5	2	1	2	3	
32	36	29	24	22	19	18	15	13	10	9	7	6	3	2	2	2	2	4	2	1	1	
33	32	26	21	19	17	16	13	12	9	8	6	4	4	3	2	1	1	1	3	1	1	
34	28	23	19	17	15	14	12	10	8	7	5	4	3	3	2	1	1	1	1	3	1	
35	25	21	17	15	14	12	11	9	8	6	5	3	2	2	2	1	1	1	1	2	1	
36	22	18	15	13	12	11	9	8	7	6	4	3	2	2	2	2	1	1	1	1	2	
37	20	16	13	12	11	10	8	7	6	5	4	3	2	2	2	1	1	1	1	1	1	
38	18	15	12	11	10	9	7	6	5	4	3	2	2	2	1	1	1	1	1	1	1	
39	16	13	11	10	9	8	7	6	5	4	3	2	2	1	1	1	1	1	1	1	1	
40	133	109	88	80	71	64	56	48	39	33	25	18	13	11	11	9	8	7	7	7	7	

Table 15. continued.

Age (yr)	2004	2005	2006	2007	2008	2009	2010	2011
0	234	178	410	1,101	328	1,119	518	934
1	635	221	168	386	1,037	309	1,054	488
2	439	598	208	158	363	976	291	992
3	762	413	563	196	149	342	919	274
4	370	717	389	529	184	140	322	864
5	464	347	674	365	497	173	131	300
6	398	435	326	630	342	466	162	122
7	257	372	407	304	590	320	437	150
8	371	239	347	379	284	551	299	404
9	309	344	223	323	353	264	513	277
10	364	285	319	206	299	327	245	474
11	268	335	263	294	190	277	303	226
12	224	246	308	242	271	175	255	278
13	292	205	225	282	222	248	161	233
14	220	266	187	206	258	203	227	147
15	207	199	241	170	187	235	184	206
16	147	187	181	220	154	170	214	168
17	104	134	170	164	200	141	155	194
18	59	94	121	155	150	182	128	141
19	38	54	85	110	141	136	165	116
20	90	35	49	78	100	128	124	150
21	19	82	31	44	71	91	117	113
22	19	17	74	29	40	64	83	106
23	27	17	15	68	26	37	58	76
24	8	25	16	14	62	24	33	53
25	7	8	23	14	13	56	22	30
26	12	6	7	21	13	12	51	20
27	8	10	6	6	19	12	11	46
28	3	7	10	5	6	17	11	10
29	7	3	7	9	5	5	16	10
30	3	6	3	6	8	4	5	14
31	3	3	6	2	6	7	4	4
32	3	3	2	5	2	5	7	4
33	2	3	2	2	5	2	5	6
34	1	2	2	2	2	4	2	4
35	1	1	2	2	2	2	4	2
36	1	1	1	2	2	2	2	4
37	2	1	1	1	1	2	2	1
38	1	2	1	1	1	1	2	2
39	1	1	2	1	1	1	1	2
40	7	7	7	8	8	7	8	8

Table 16. Male numbers at age (1000's) predicted by the base case model, 1916-2009.

Age (yr)	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	
0	1,675	1,675	1,674	1,674	1,674	1,673	1,673	1,673	1,673	1,673	1,672	1,672	1,672	1,672	1,671	1,671	1,670	1,670	1,670	1,670	1,670	1,670	
1	1,577	1,577	1,577	1,577	1,576	1,576	1,576	1,576	1,576	1,575	1,575	1,575	1,575	1,575	1,574	1,574	1,573	1,573	1,573	1,573	1,573	1,572	
2	1,485	1,485	1,485	1,485	1,485	1,485	1,484	1,484	1,484	1,484	1,484	1,483	1,483	1,483	1,483	1,483	1,482	1,482	1,481	1,481	1,481	1,481	
3	1,399	1,399	1,399	1,399	1,399	1,398	1,398	1,398	1,398	1,398	1,397	1,397	1,397	1,397	1,397	1,396	1,396	1,396	1,395	1,395	1,395	1,395	
4	1,317	1,317	1,317	1,317	1,317	1,317	1,317	1,317	1,317	1,316	1,316	1,316	1,316	1,316	1,316	1,315	1,315	1,315	1,314	1,314	1,314	1,314	
5	1,241	1,241	1,240	1,240	1,240	1,241	1,240	1,240	1,240	1,240	1,239	1,239	1,239	1,239	1,239	1,238	1,238	1,238	1,237	1,237	1,237	1,237	
6	1,168	1,168	1,168	1,168	1,168	1,168	1,168	1,168	1,168	1,167	1,167	1,167	1,167	1,167	1,166	1,166	1,166	1,166	1,165	1,165	1,165	1,164	
7	1,100	1,100	1,100	1,099	1,099	1,100	1,100	1,100	1,100	1,099	1,098	1,098	1,098	1,098	1,098	1,097	1,097	1,097	1,097	1,097	1,096	1,096	
8	1,036	1,036	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,034	1,034	1,034	1,034	1,033	1,033	1,033	1,033	1,032	1,032	1,032	1,031	
9	976	975	975	974	974	974	974	974	974	974	974	974	974	973	973	972	972	972	972	972	971	971	971
10	919	919	918	917	917	917	917	917	917	917	917	917	917	916	916	915	915	915	915	914	914	914	914
11	866	865	864	864	863	863	863	863	863	863	863	863	862	862	861	861	861	861	860	860	860	860	860
12	815	815	814	813	813	812	812	812	812	812	812	812	811	811	810	810	810	810	810	810	810	809	809
13	768	767	767	766	765	765	765	764	764	764	764	764	763	763	762	762	762	762	762	762	762	762	762
14	723	723	722	721	721	720	720	720	720	719	719	719	719	718	718	717	717	717	717	717	717	717	717
15	681	680	680	679	679	678	678	678	677	677	677	677	677	676	676	675	675	675	675	674	674	674	674
16	641	641	640	640	639	639	638	638	638	637	637	637	637	636	636	635	635	635	635	635	634	634	634
17	604	604	603	602	602	602	601	601	601	600	600	600	599	599	598	598	598	598	597	597	597	597	597
18	569	568	568	567	567	567	566	566	566	565	565	565	564	564	563	563	563	563	562	562	562	562	562
19	536	535	535	534	534	534	533	533	533	532	532	532	531	531	530	530	530	530	529	529	529	529	529
20	504	504	504	503	503	503	502	502	502	501	501	500	499	499	498	498	498	498	498	498	498	498	498
21	475	475	474	474	473	473	473	472	472	472	471	471	470	470	470	469	469	469	469	469	469	469	469
22	447	447	447	446	446	446	445	445	445	445	444	444	443	443	443	442	442	441	441	441	441	441	441
23	421	421	421	420	420	420	420	419	419	419	418	418	418	417	417	416	416	415	415	415	415	415	415
24	397	397	396	396	395	395	395	395	394	394	394	393	393	392	392	391	391	391	391	391	391	391	391
25	374	373	373	373	373	372	372	372	372	371	371	371	370	370	370	369	369	368	368	368	368	368	368
26	352	352	351	351	351	351	350	350	350	350	350	349	349	348	348	347	347	347	346	346	346	346	346
27	331	331	331	331	330	330	330	330	330	329	329	329	328	328	327	327	327	326	326	326	326	326	
28	312	312	312	311	311	311	311	311	310	310	310	309	309	309	308	308	308	307	307	307	307	307	
29	294	294	294	293	293	293	293	293	292	292	292	291	291	290	290	289	289	289	289	289	289	289	
30	277	277	276	276	276	276	276	275	275	275	275	274	274	274	273	273	273	272	272	272	272	272	
31	261	261	260	260	260	260	260	259	259	259	259	258	258	258	257	257	257	257	256	256	256	256	
32	246	245	245	245	245	245	244	244	244	244	244	244	243	243	243	242	242	242	241	241	241	241	
33	231	231	231	231	231	230	230	230	230	230	229	229	229	228	228	228	228	227	227	227	227	227	
34	218	218	217	217	217	217	217	217	216	216	216	216	216	215	215	215	214	214	214	214	214	214	
35	205	205	205	205	204	204	204	204	204	204	203	203	203	203	202	202	202	202	202	202	202	201	
36	193	193	193	193	192	192	192	192	192	192	191	191	191	191	190	190	190	190	190	190	190	190	
37	182	182	182	181	181	181	181	181	181	181	180	180	180	180	179	179	179	179	179	179	179	179	
38	171	171	171	171	171	171	171	170	170	170	170	170	170	169	169	169	169	168	168	168	168	168	
39	161	161	161	161	161	161	161	161	160	160	160	160	160	160	159	159	159	159	159	159	159	158	
40	2,609	2,607	2,605	2,603	2,601	2,599	2,598	2,596	2,595	2,593	2,591	2,589	2,586	2,584	2,580	2,577	2,573	2,571	2,568	2,566	2,564	2,561	

Table 16. continued.

Age (yr)	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
0	1,669	1,669	1,669	1,668	1,667	1,665	1,657	1,644	1,618	1,602	1,595	1,589	1,584	1,580	1,576	1,572	1,571	1,567	1,563	1,556	1,548	1,544
1	1,572	1,572	1,572	1,572	1,571	1,570	1,568	1,560	1,548	1,523	1,509	1,502	1,497	1,492	1,488	1,484	1,481	1,479	1,476	1,472	1,465	1,458
2	1,481	1,481	1,481	1,480	1,479	1,478	1,476	1,469	1,458	1,435	1,421	1,414	1,409	1,405	1,401	1,398	1,395	1,393	1,390	1,386	1,380	
3	1,395	1,395	1,394	1,394	1,394	1,394	1,393	1,392	1,390	1,384	1,373	1,351	1,338	1,332	1,327	1,323	1,320	1,316	1,313	1,312	1,309	1,306
4	1,313	1,313	1,313	1,313	1,313	1,313	1,312	1,312	1,310	1,309	1,303	1,293	1,272	1,259	1,253	1,249	1,246	1,242	1,238	1,235	1,234	1,231
5	1,236	1,236	1,236	1,236	1,236	1,235	1,235	1,234	1,233	1,232	1,231	1,225	1,215	1,195	1,183	1,178	1,174	1,170	1,166	1,162	1,160	1,157
6	1,164	1,163	1,163	1,163	1,163	1,162	1,162	1,160	1,158	1,158	1,159	1,157	1,151	1,141	1,122	1,111	1,107	1,102	1,098	1,093	1,090	1,086
7	1,095	1,095	1,095	1,094	1,094	1,094	1,094	1,092	1,090	1,086	1,087	1,088	1,086	1,080	1,070	1,053	1,043	1,038	1,033	1,027	1,023	1,019
8	1,031	1,030	1,030	1,030	1,029	1,029	1,026	1,023	1,016	1,014	1,018	1,019	1,020	1,018	1,011	1,003	987	977	971	965	960	956
9	970	970	969	969	968	967	964	959	948	945	949	952	954	954	952	946	939	923	913	906	901	896
10	913	913	912	912	911	910	905	898	883	878	882	886	889	891	890	889	884	876	861	850	843	839
11	860	859	859	858	857	855	849	841	821	815	818	822	826	829	829	829	824	816	800	789	784	
12	809	809	808	807	806	804	797	787	764	755	757	760	764	767	769	770	772	771	766	756	740	731
13	761	761	761	760	759	756	748	737	711	699	700	702	704	708	710	713	717	717	715	707	698	685
14	717	716	716	715	714	711	702	690	662	648	647	647	649	652	654	658	662	664	664	659	651	644
15	674	674	674	673	672	669	660	647	617	602	599	598	598	599	602	605	610	613	614	610	606	601
16	634	634	634	633	632	629	620	606	576	560	555	553	551	551	553	555	561	564	566	563	560	558
17	597	597	597	596	595	592	582	569	539	522	516	512	509	508	508	510	514	517	520	519	516	515
18	562	562	561	561	559	557	547	534	504	487	481	475	471	469	467	468	472	474	477	476	475	
19	528	528	528	527	526	524	515	501	472	456	448	442	437	434	431	431	433	435	437	436	435	436
20	497	497	497	496	495	493	484	471	443	427	419	412	407	402	399	397	398	399	400	399	399	400
21	468	468	468	467	466	464	455	442	415	400	392	385	379	374	370	367	367	367	366	365	366	
22	441	441	440	439	438	436	428	416	390	375	367	360	354	348	344	340	339	338	337	335	334	334
23	415	415	414	414	412	410	402	391	366	351	344	337	331	325	320	316	314	312	311	308	306	306
24	390	390	390	389	388	386	378	367	344	330	323	316	310	304	299	295	292	289	287	283	281	280
25	367	367	367	366	365	363	356	345	323	310	303	296	290	285	279	275	272	269	266	262	258	257
26	346	346	346	345	344	342	335	325	304	291	284	278	272	267	261	257	254	250	247	242	238	
27	325	325	325	324	322	315	306	285	273	267	261	255	250	245	240	237	233	230	225	221	218	
28	306	306	305	305	303	297	288	268	257	251	245	240	234	230	225	222	218	214	210	205	202	
29	288	288	288	287	287	285	279	271	252	241	236	230	225	220	215	211	208	204	200	195	191	188
30	272	271	271	270	270	268	263	255	237	227	221	216	211	207	202	198	195	191	187	183	178	175
31	256	255	255	255	254	252	247	239	223	214	208	203	199	194	190	186	183	179	175	171	166	163
32	241	241	240	240	239	238	233	225	210	201	196	191	187	182	178	174	171	168	164	160	155	152
33	227	227	226	226	225	224	219	212	198	189	184	180	176	171	167	164	161	157	154	150	145	
34	214	213	213	213	212	210	206	199	186	178	173	169	165	161	157	154	151	148	145	140	136	133
35	201	201	201	200	199	198	194	188	175	167	163	159	155	151	148	145	142	139	136	132	128	125
36	189	189	189	188	188	187	183	177	165	157	153	150	146	142	139	136	133	130	128	124	120	117
37	178	178	178	177	177	176	172	166	155	148	144	141	137	134	131	128	125	123	120	116	112	110
38	168	168	168	167	167	165	162	157	146	139	136	132	129	126	123	120	118	115	113	109	106	103
39	158	158	158	157	157	156	152	148	137	131	128	125	122	119	116	113	111	108	106	103	99	97
40	2,558	2,556	2,553	2,546	2,537	2,521	2,466	2,385	2,220	2,120	2,064	2,011	1,961	1,911	1,863	1,818	1,783	1,739	1,697	1,641	1,586	1,543

Table 16. continued.

Age (yr)	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
0	1,584	1,937	1,521	1,234	1,135	1,180	1,416	3,153	1,401	1,131	1,233	1,755	2,015	1,656	1,260	2,357	870	1,683	1,831	829	741	1,721
1	1,454	1,492	1,824	1,433	1,162	1,069	1,111	1,333	2,970	1,320	1,065	1,161	1,652	1,898	1,559	1,187	2,220	819	1,585	1,725	781	697
2	1,373	1,369	1,405	1,718	1,349	1,095	1,007	1,047	1,256	2,797	1,243	1,003	1,094	1,556	1,787	1,468	1,118	2,091	771	1,493	1,624	735
3	1,299	1,293	1,289	1,323	1,618	1,271	1,031	948	986	1,182	2,633	1,170	944	1,030	1,465	1,683	1,382	1,052	1,968	726	1,405	1,528
4	1,228	1,223	1,217	1,213	1,245	1,522	1,195	969	892	927	1,111	2,473	1,099	887	966	1,375	1,578	1,297	987	1,846	681	1,313
5	1,155	1,153	1,149	1,143	1,139	1,169	1,428	1,120	909	835	867	1,038	2,313	1,026	827	900	1,280	1,469	1,207	917	1,714	629
6	1,084	1,083	1,082	1,077	1,072	1,068	1,094	1,336	1,048	849	780	808	968	2,151	952	766	834	1,185	1,360	1,114	846	1,570
7	1,016	1,015	1,015	1,014	1,010	1,004	1,000	1,023	1,250	979	792	726	752	898	1,989	880	708	770	1,095	1,249	1,022	770
8	952	950	951	949	949	945	938	933	957	1,166	913	737	674	697	828	1,835	812	653	710	999	1,139	924
9	892	889	888	887	888	886	881	874	873	891	1,086	848	683	623	640	761	1,688	748	600	643	903	1,016
10	834	831	829	826	828	827	825	818	817	810	828	1,006	783	630	570	586	699	1,551	683	538	575	793
11	779	775	772	768	769	769	767	762	763	755	751	766	926	720	574	521	536	640	1,410	606	476	495
12	726	722	718	713	713	713	711	705	710	702	698	692	702	850	655	522	474	490	578	1,236	531	403
13	676	671	667	661	661	659	656	651	656	651	648	641	633	643	771	594	474	433	440	502	1,074	442
14	632	623	619	612	612	609	606	599	604	599	599	594	585	578	582	698	538	432	387	379	433	883
15	594	581	574	567	565	563	559	551	555	550	550	548	540	534	523	526	631	489	385	331	325	353
16	553	545	534	524	523	520	515	507	510	505	505	503	497	492	482	471	475	573	435	327	283	263
17	512	507	500	487	483	479	474	466	469	463	462	461	456	453	444	434	425	431	508	368	279	228
18	473	469	464	456	448	442	437	429	431	425	424	422	417	415	408	400	391	386	381	429	313	224
19	435	433	430	423	419	411	403	395	397	390	389	386	382	380	373	367	360	355	341	321	364	251
20	400	398	396	391	388	383	374	364	365	359	357	354	349	347	341	336	331	326	313	287	273	291
21	366	365	364	360	359	355	349	337	337	330	328	325	320	318	312	307	302	300	288	263	243	218
22	335	334	334	330	330	328	323	314	312	304	302	299	294	291	285	280	276	274	264	241	223	194
23	306	306	305	303	303	302	298	291	291	281	278	275	270	267	261	256	252	250	242	221	205	178
24	280	279	279	277	278	277	274	269	269	262	257	253	248	245	240	235	231	229	221	202	188	163
25	256	255	255	253	254	254	252	247	248	243	240	234	228	225	220	215	211	209	202	185	171	150
26	235	234	233	231	232	232	231	226	228	224	222	218	211	207	202	197	194	191	184	168	157	137
27	216	214	213	211	212	212	211	207	209	206	205	202	197	192	186	181	178	175	169	154	143	125
28	200	197	196	193	194	193	192	190	192	189	188	186	182	179	172	167	163	161	155	141	131	114
29	185	182	180	177	177	176	173	175	173	173	171	168	165	160	154	150	148	142	129	119	104	
30	172	168	166	163	163	162	160	158	160	158	158	157	154	152	148	144	139	136	130	118	109	95
31	160	156	154	150	149	148	147	144	146	144	144	144	142	140	137	133	129	126	120	109	100	87
32	149	145	143	139	138	136	135	132	133	132	132	131	130	128	126	123	120	117	111	100	92	80
33	139	136	133	129	128	126	124	121	122	120	120	118	118	115	113	110	108	103	92	85	73	
34	130	127	124	120	118	116	114	111	112	110	110	109	108	107	105	103	101	100	96	86	78	68
35	122	118	115	112	110	108	106	103	103	101	100	99	98	96	95	93	92	88	80	73	63	
36	114	111	108	104	103	100	98	95	95	93	92	91	90	89	88	86	85	84	81	73	68	58
37	107	104	101	98	96	94	91	88	88	85	85	84	82	82	80	79	78	77	74	67	62	54
38	100	97	95	91	90	87	85	82	81	79	78	77	75	75	73	72	71	70	68	62	57	50
39	94	91	89	86	84	82	79	76	76	73	72	71	69	68	67	66	65	64	62	57	52	46
40	1,498	1,449	1,405	1,351	1,318	1,277	1,233	1,180	1,161	1,114	1,086	1,052	1,013	981	941	905	873	849	805	722	661	569

Table 16. continued.

Age (yr)	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
0	841	572	1,938	594	696	934	1,021	1,104	918	988	635	657	785	594	643	405	580	631	471	913	495	674
1	1,621	792	539	1,825	560	655	880	961	1,040	864	930	598	619	739	559	605	382	547	594	443	860	466
2	657	1,526	746	508	1,719	527	617	828	905	979	814	876	564	583	696	527	570	359	515	559	418	809
3	692	618	1,436	702	477	1,616	496	580	779	852	921	766	824	530	549	655	496	537	338	485	527	393
4	1,428	645	579	1,344	654	444	1,500	461	540	728	795	860	716	771	495	513	610	464	501	316	455	495
5	1,211	1,305	599	536	1,228	595	403	1,362	421	497	668	730	790	660	706	454	465	561	425	462	294	426
6	574	1,092	1,203	550	483	1,103	532	360	1,227	382	449	604	661	720	594	636	403	420	507	388	427	275
7	1,424	514	997	1,096	492	432	981	473	320	1,097	340	400	541	598	640	526	556	358	377	462	358	399
8	695	1,261	462	901	975	438	382	866	415	282	959	296	352	484	523	554	452	484	319	344	427	334
9	825	605	1,109	412	793	862	383	333	744	356	239	808	254	311	416	441	466	382	425	292	319	398
10	897	703	517	976	358	693	739	327	278	621	291	193	669	220	262	340	362	383	331	390	271	297
11	691	746	583	448	832	308	582	618	265	225	487	225	153	566	183	209	274	289	326	305	363	252
12	427	561	600	497	376	707	254	475	487	210	170	360	171	127	465	143	165	214	244	302	284	338
13	343	339	440	506	412	315	571	203	366	376	152	121	264	140	104	358	111	127	179	226	281	264
14	374	268	261	367	415	342	251	450	153	277	265	105	86	212	113	79	277	85	106	166	210	261
15	742	288	203	216	299	342	269	195	334	114	191	179	73	68	171	86	61	210	70	98	154	196
16	295	567	216	167	175	245	267	208	143	247	78	127	122	58	55	130	66	46	174	65	91	144
17	219	224	421	177	135	142	190	205	151	106	166	51	85	96	46	42	100	50	38	161	61	85
18	189	166	165	345	142	110	110	145	148	111	70	108	34	67	77	35	32	75	41	35	150	57
19	186	143	122	135	276	116	85	84	105	108	73	45	71	26	54	58	27	24	62	38	33	140
20	208	140	105	100	108	224	89	64	60	76	71	47	30	55	21	41	45	20	20	58	36	31
21	242	156	102	85	80	88	172	67	46	44	50	46	31	23	45	16	31	34	17	19	54	33
22	181	181	114	84	68	64	67	130	48	34	29	32	30	24	19	34	12	24	28	16	17	50
23	161	135	132	93	67	55	50	51	94	35	22	18	21	23	19	14	26	9	20	26	15	16
24	148	121	99	108	74	54	42	37	37	68	23	14	12	16	19	15	11	20	8	18	24	14
25	135	111	88	81	86	60	41	32	27	27	45	15	9	9	13	14	11	8	16	7	17	23
26	124	101	81	72	64	70	46	31	23	20	17	28	10	7	8	10	11	9	7	15	7	16
27	113	93	74	66	57	52	54	35	22	17	13	11	19	7	6	6	8	8	7	6	14	6
28	103	85	68	60	52	46	40	40	25	16	11	8	7	14	6	4	4	6	7	7	6	13
29	94	77	62	55	48	42	36	30	29	18	11	7	5	6	12	5	3	3	5	6	6	6
30	86	71	56	50	44	39	33	27	22	21	12	7	5	4	5	9	4	3	3	5	6	6
31	79	65	51	46	40	36	30	25	19	16	14	8	4	4	3	3	7	3	2	3	4	6
32	72	59	47	42	37	33	27	23	18	14	10	9	5	3	3	3	3	5	2	2	2	4
33	66	54	43	38	34	30	25	21	16	13	9	7	6	4	3	2	2	2	4	2	2	2
34	61	50	39	35	31	27	23	19	15	12	8	6	4	4	3	2	2	2	4	2	2	2
35	56	46	36	32	28	25	21	17	14	11	8	5	4	3	4	2	2	1	1	2	4	2
36	52	42	33	29	26	23	19	16	12	10	7	5	3	3	3	2	2	1	1	1	1	4
37	48	39	31	27	24	21	17	14	11	9	6	4	3	3	2	2	2	1	1	1	1	1
38	45	36	28	25	22	19	16	13	10	8	6	4	3	2	2	2	2	1	1	1	1	1
39	41	33	26	23	20	18	15	12	9	7	5	4	3	2	2	2	1	1	1	1	1	1
40	509	412	324	286	247	216	179	146	114	89	63	44	31	26	23	19	16	13	12	13	13	13

Table 16. continued.

Age (yr)	2004	2005	2006	2007	2008	2009	2010	2011
0	234	178	410	1,101	328	1,119	518	934
1	635	221	168	386	1,037	309	1,054	488
2	439	598	208	158	363	976	291	992
3	762	413	563	196	149	342	919	274
4	370	717	389	529	184	140	322	862
5	463	347	673	364	496	173	131	300
6	397	434	325	629	341	466	162	122
7	256	372	406	304	589	320	436	150
8	370	239	348	380	285	553	300	405
9	310	346	224	326	356	267	519	280
10	370	290	324	210	306	335	251	485
11	276	346	272	304	197	287	314	235
12	235	258	324	255	286	185	270	295
13	315	220	242	304	239	268	174	253
14	246	294	206	227	285	225	252	163
15	244	230	276	193	213	268	211	236
16	182	228	216	259	181	200	252	198
17	134	171	214	202	243	170	188	236
18	79	125	160	200	190	228	160	177
19	53	74	118	150	188	179	215	150
20	130	49	70	110	141	177	168	201
21	29	122	46	65	104	132	166	157
22	31	27	114	43	61	97	124	156
23	47	29	25	107	41	58	91	117
24	15	44	27	24	101	38	54	86
25	13	14	41	25	22	95	36	51
26	21	12	13	38	24	21	89	34
27	15	20	11	12	36	22	20	83
28	6	14	18	10	12	34	21	18
29	12	5	13	17	10	11	32	20
30	5	12	5	12	16	9	10	30
31	5	5	11	5	11	15	9	10
32	5	5	5	10	5	11	14	8
33	4	5	5	4	10	4	10	13
34	2	3	5	4	4	9	4	9
35	2	2	3	4	4	4	8	4
36	2	2	2	3	4	4	4	8
37	3	2	1	2	3	4	4	3
38	1	3	1	1	2	3	4	3
39	1	1	3	1	1	2	3	3
40	13	13	13	15	15	16	16	17

Table 17. Projection of potential canary rockfish OFL, ACL, spawning biomass and depletion for the base-case model based on the SPR = 0.887 fishing mortality target used for the last rebuilding plan (ACL) and  $F_{50\%}$  overfishing limit/target (OFL). Assuming the ACL of 102 and 107 mt are respectively achieved exactly in 2011 and 2012.

Year	OFL <sup>1</sup> (mt)	ACL <sup>1</sup> (mt)	Age 5+ biomass (mt)	Spawning biomass (mt)	Depletion
2011	471	102	15,444	6,458	23.2%
2012	495	107	16,036	6,608	23.7%
2013	526	90	16,233	6,722	24.1%
2014	540	95	16,898	6,838	24.6%
2015	551	100	17,282	6,964	25.0%
2016	565	105	17,895	7,114	25.5%
2017	582	110	18,565	7,295	26.2%
2018	598	115	19,286	7,510	27.0%
2019	612	120	20,050	7,760	27.9%
2020	623	124	20,846	8,045	28.9%
2021	631	128	21,665	8,358	30.0%
2022	639	132	22,499	8,693	31.2%

<sup>1</sup>OFL/ACL value for 2011 has been adopted by the PFMC and the value for 2012 is likely to be adopted (John DeVore, personal com.), and hence are not based on the results of this update.

Table 18. Decision table of 12-year projections for alternate states of nature (columns) and management options (rows) beginning in 2011. Relative probabilities of each state of nature are based on a 2007 meta-analysis for steepness of west coast rockfish (M. Dorn, AFSC, personal communication). Landings in 2011-2012 are 102 and 107 mt, respectively for all cases. Selectivity and fleet allocations are projected at the average 2008-2010 values.

		State of nature						
		Low steepness (0.35)		Base case (steepness = 0.51)		High steepness (0.72)		
Relative probability		0.25		0.5		0.25		
Management decision	Catch (mt)	Depletion	Spawning biomass (mt)	Depletion	Spawning biomass (mt)	Depletion	Spawning biomass (mt)	
Rebuilding SPR 88.7% catches from low steepness state of nature	2013	0.0	5.6%	1,573	24.1%	6,722	44.0%	12,107
	2014	0.0	5.7%	1,592	24.7%	6,864	45.1%	12,415
	2015	0.0	5.7%	1,613	25.2%	7,019	46.3%	12,742
	2016	0.0	5.8%	1,640	25.9%	7201	47.7%	13,108
	2017	0.0	5.9%	1,673	26.6%	7,419	49.2%	13,518
	2018	0.0	6.1%	1,716	27.6%	7,673	50.8%	13,965
	2019	0.0	6.3%	1,766	28.6%	7,968	52.5%	14,444
	2020	0.0	6.5%	1,825	29.8%	8,300	54.4%	14,947
	2021	0.0	6.7%	1,891	31.1%	8,663	56.2%	15,467
	2022	0.0	7.0%	1,961	32.5%	9,051	58.2%	15,995
Rebuilding SPR 88.7% catches from base case	2013	70	5.6%	1,573	24.1%	6,722	44.0%	12,107
	2014	75	5.6%	1,567	24.6%	6,838	45.1%	12,389
	2015	80	5.5%	1,559	25.0%	6,964	46.1%	12,687
	2016	85	5.5%	1,553	25.5%	7,114	47.3%	13,020
	2017	90	5.5%	1,551	26.2%	7,295	48.7%	13,392
	2018	96	5.5%	1,554	27.0%	7,510	50.2%	13,798
	2019	102	5.6%	1,562	27.9%	7,760	51.8%	14,233
	2020	108	5.6%	1,575	28.9%	8,045	53.4%	14,689
	2021	113	5.7%	1,591	30.0%	8,358	55.1%	15,159
	2022	119	5.7%	1,609	31.2%	8,693	56.9%	15,635
Rebuilding SPR 88.7% catches from high steepness state of nature	2013	163	5.6%	1,573	24.1%	6,722	44.0%	12,107
	2014	171	5.4%	1,533	24.4%	6,805	44.9%	12,355
	2015	177	5.3%	1,488	24.8%	6,894	45.9%	12,615
	2016	182	5.1%	1,442	25.1%	7,003	46.9%	12,907
	2017	187	5.0%	1,399	25.6%	7,142	48.1%	13,236
	2018	193	4.8%	1,359	26.3%	7,312	49.4%	13,597
	2019	198	4.7%	1,324	27.0%	7,518	50.9%	13,985
	2020	202	4.6%	1,292	27.9%	7,756	52.3%	14,395
	2021	207	4.5%	1,263	28.8%	8,024	53.9%	14,820
	2022	211	4.4%	1,235	29.9%	8,313	55.5%	15,252
Status quo (catch = 105 mt)	2013	105	5.6%	1,573	24.1%	6,722	44.0%	12,106
	2014	105	5.5%	1,553	24.5%	6,825	45.0%	12,376
	2015	105	5.5%	1,534	24.9%	6,940	46.0%	12,662
	2016	105	5.4%	1,517	25.4%	7,078	47.2%	12,983
	2017	105	5.4%	1,506	26.0%	7,250	48.5%	13,346
	2018	105	5.3%	1,502	26.8%	7,457	50.0%	13,744
	2019	105	5.3%	1,504	27.7%	7,701	51.5%	14,173
	2020	105	5.4%	1,514	28.7%	7,983	53.2%	14,626
	2021	105	5.4%	1,529	29.8%	8,296	54.9%	15,095
	2022	105	5.5%	1,549	31.0%	8,632	56.6%	15,574

## **11. Figures**

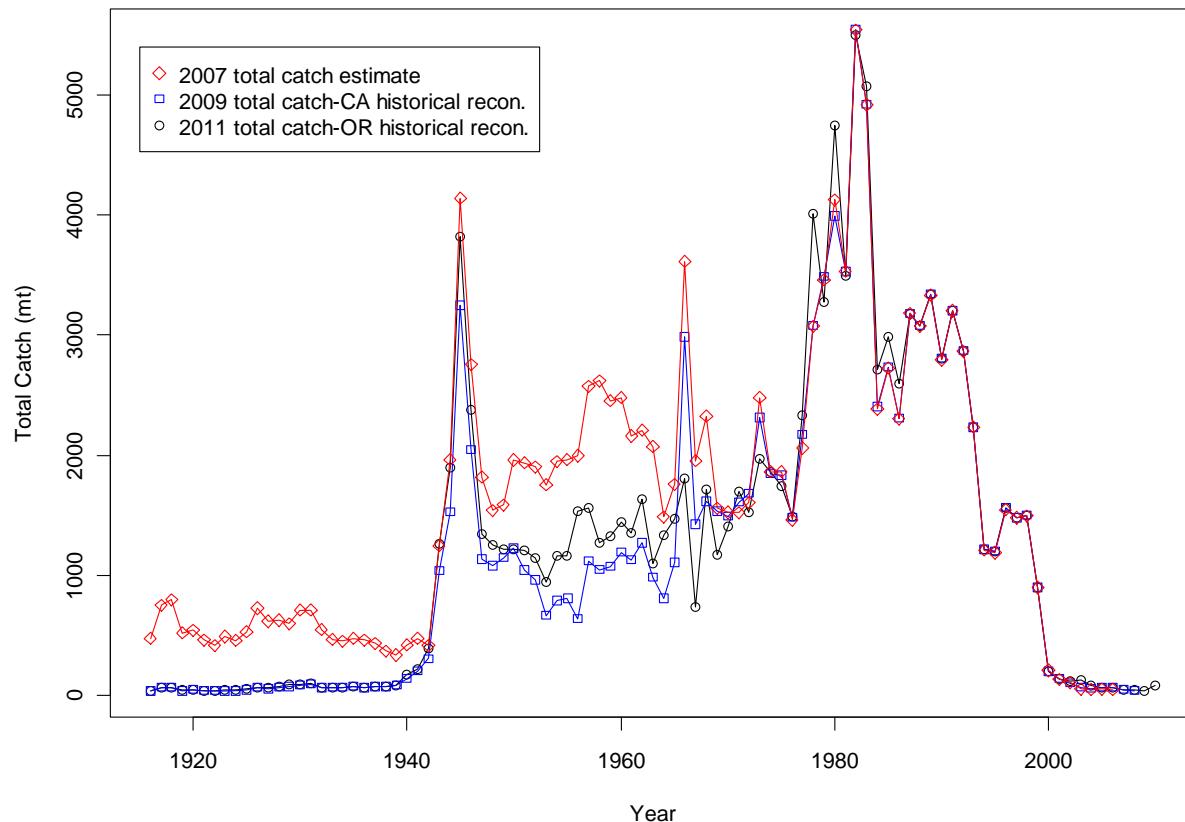


Figure 1. Comparison of 1916-current, total canary catch time series used in assessments conducted in 2007, 2009 (including the reconstruction of California landings), and in 2011 (including the recent reconstruction of Oregon landings).

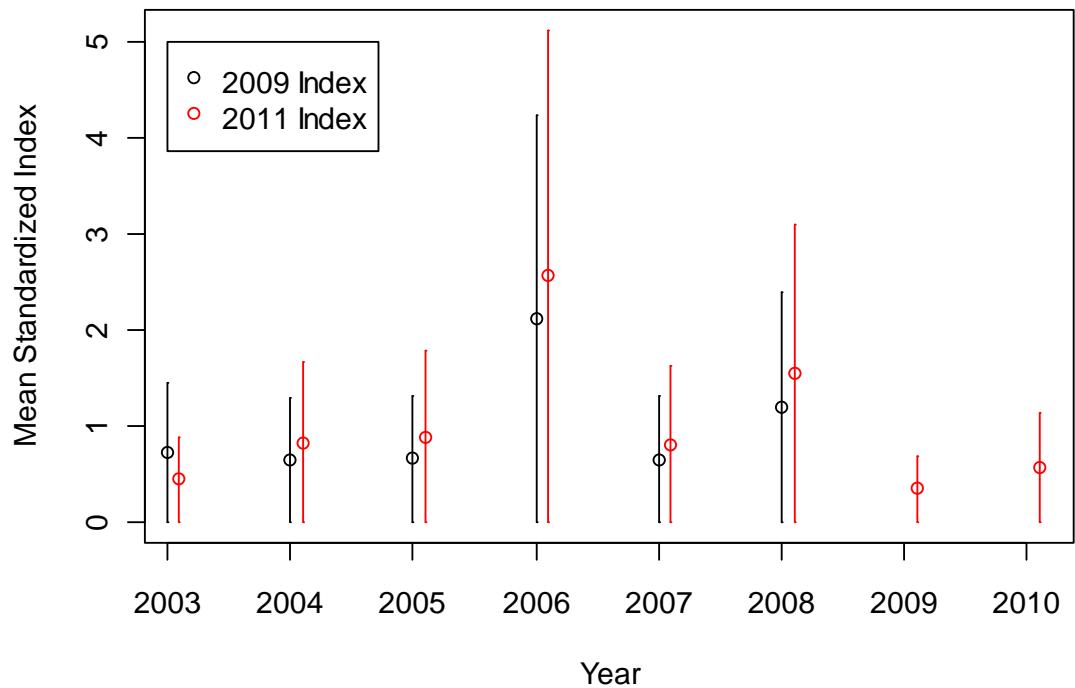


Figure 1. Comparison of 2009 GLMM-based index of abundance and the indices (using data through 2010) generated for this update from the NWFSC trawl survey. Vertical lines indicate +/- 95% confidence intervals based on an assumption of lognormal error.

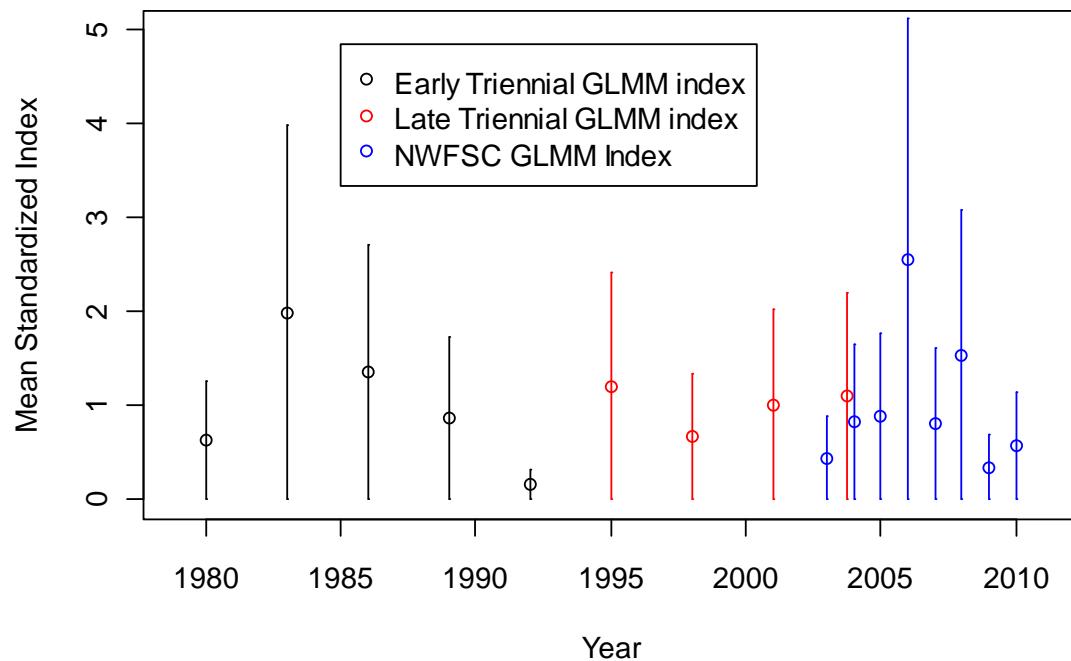


Figure 2. Triennial and NWFSC GLMM indices. Vertical lines indicate +/- 95% confidence intervals based on lognormal error

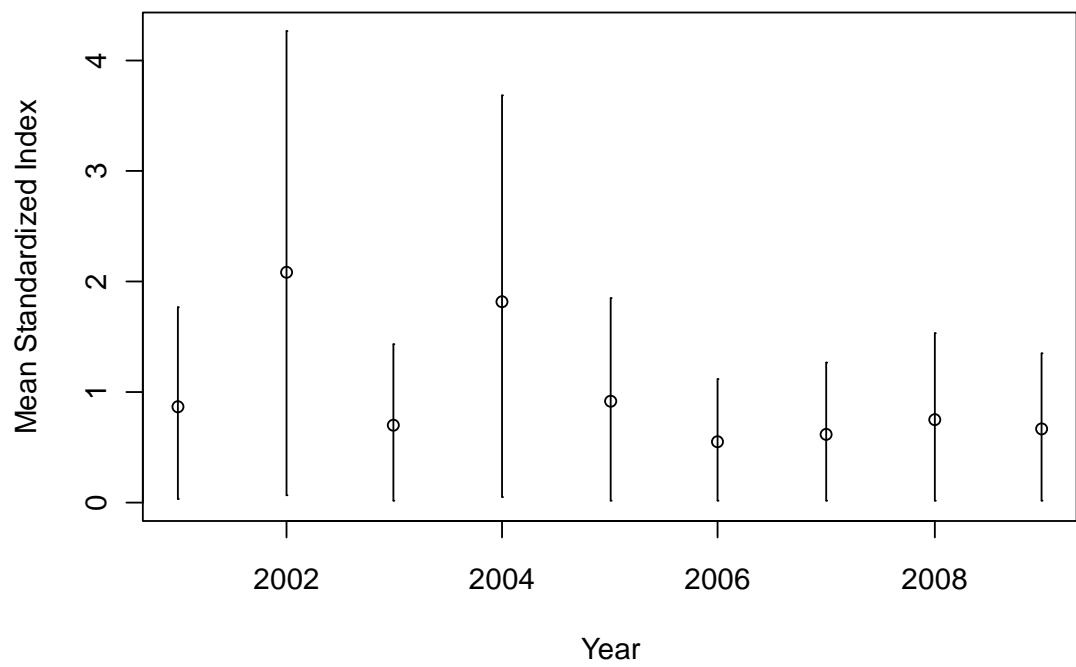


Figure 3. Coast-wide pre-recruit index for canary rockfish, 2001-2008.

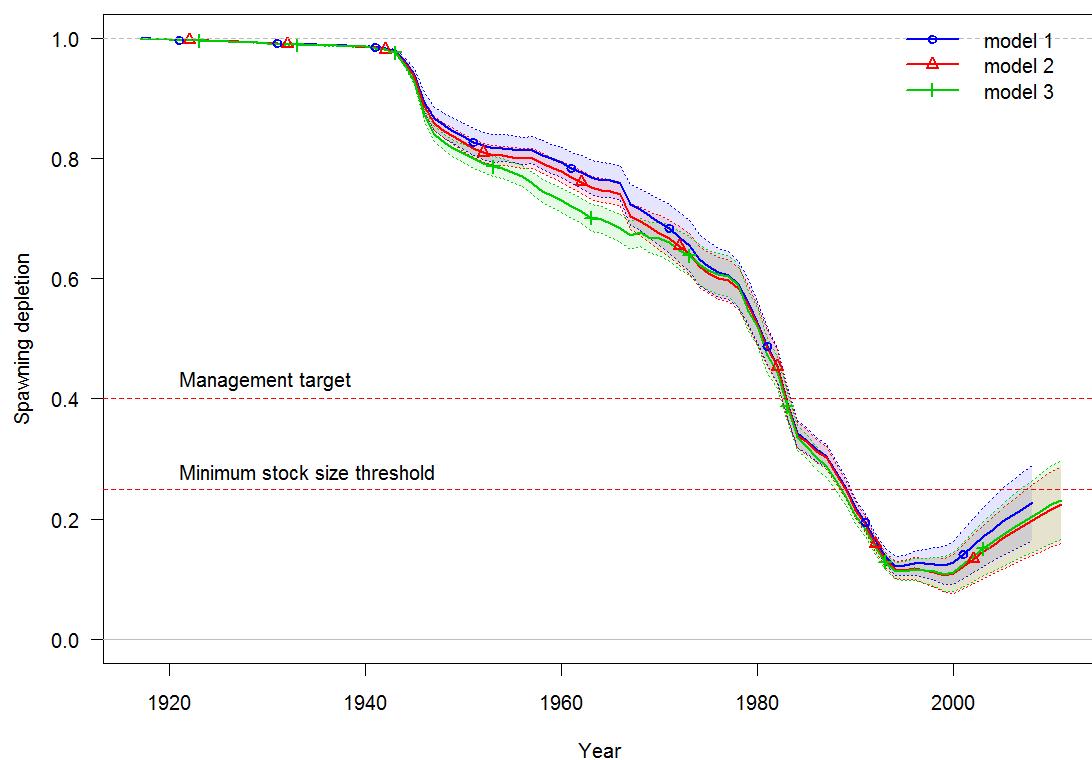


Figure 5. Estimated spawning biomass time-series (1916-2008) for the 2009 assessment base-case model (model 1) with approximate asymptotic 95% confidence interval (dashed lines), the 2011 base model without the Oregon historical catch reconstruction (model 2) and the 2011 base-case model (model 3).

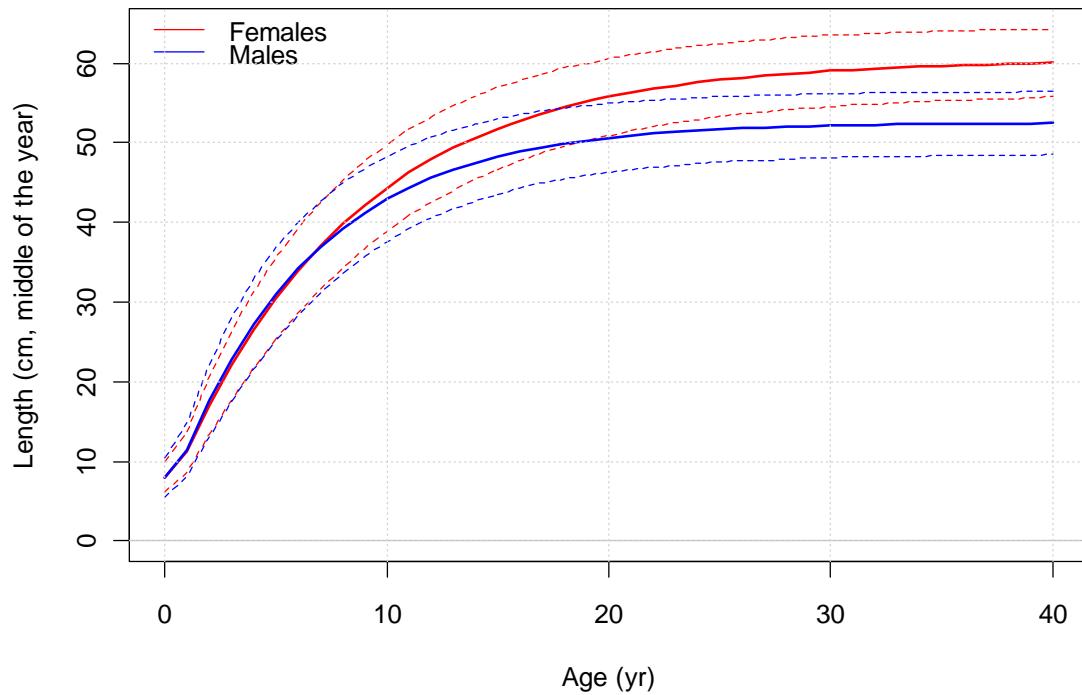


Figure 6. Growth curve for females (upper solid line) and males (lower solid line) with ~95% interval (dashed lines) indicating the expectation and individual variability of length-at-age for the base-case model.

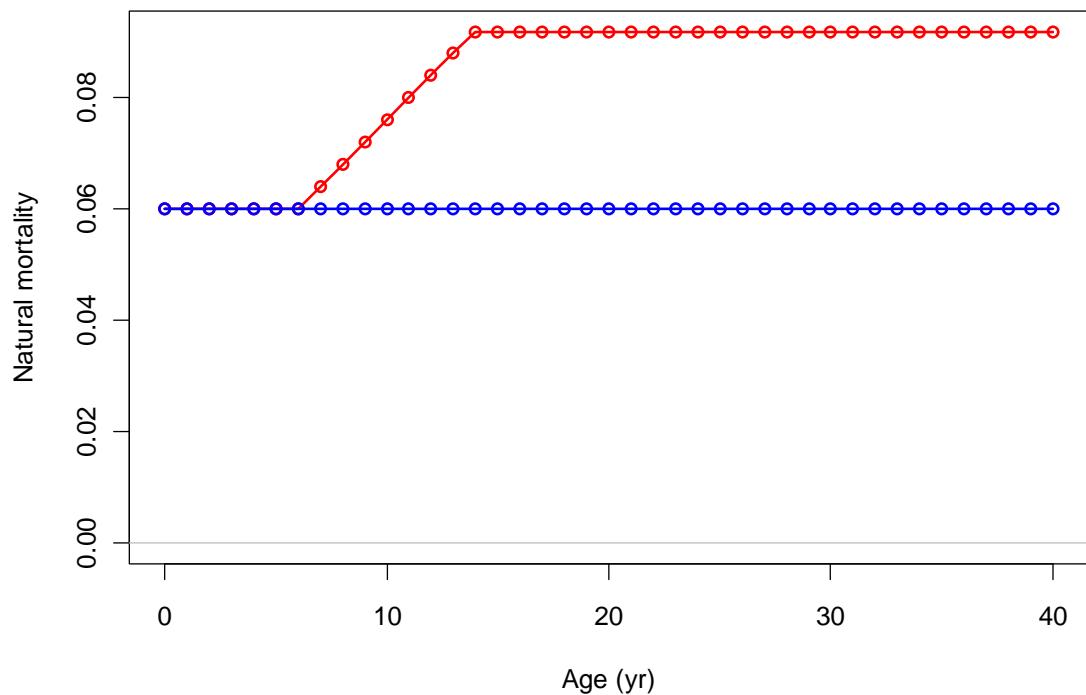


Figure 7. Natural mortality at age for males (horizontal line at 0.06) and females (linear ramp from 0.06 at age 6 to estimated value at age 14).

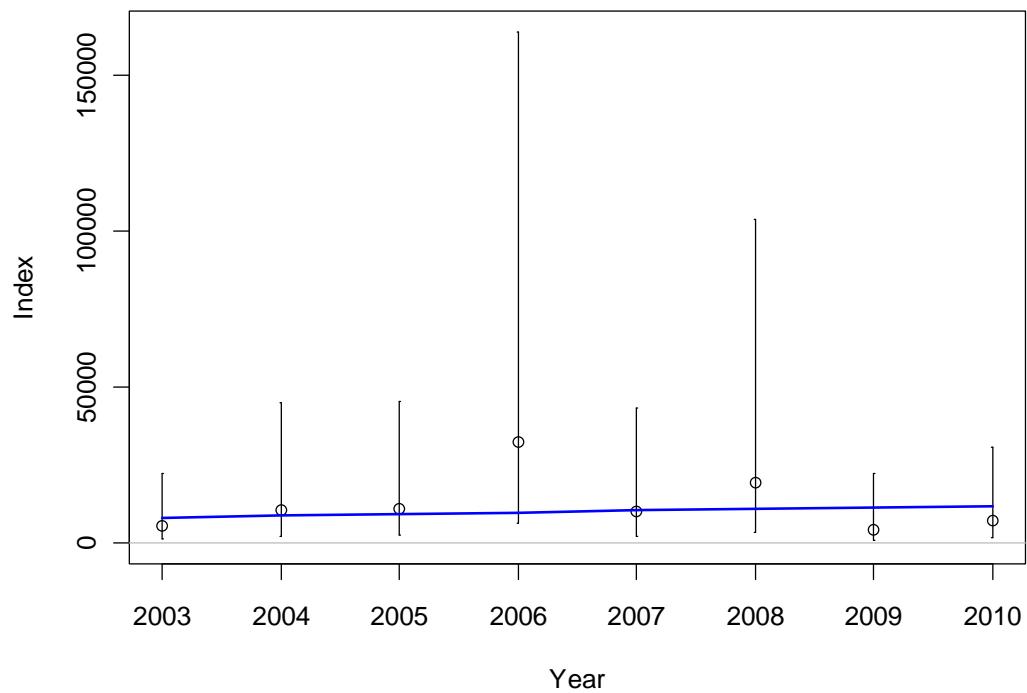


Figure 8. Fit to the NWFSC (upper panel) survey GLMM-based time series of relative biomass in the base-case model.

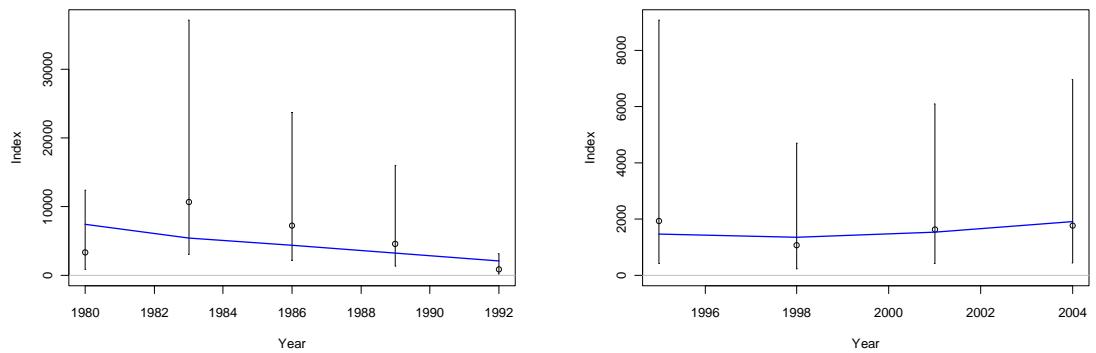


Figure 9. Fit to the triennial survey GLMM-based time series of relative biomass in the base-case model.

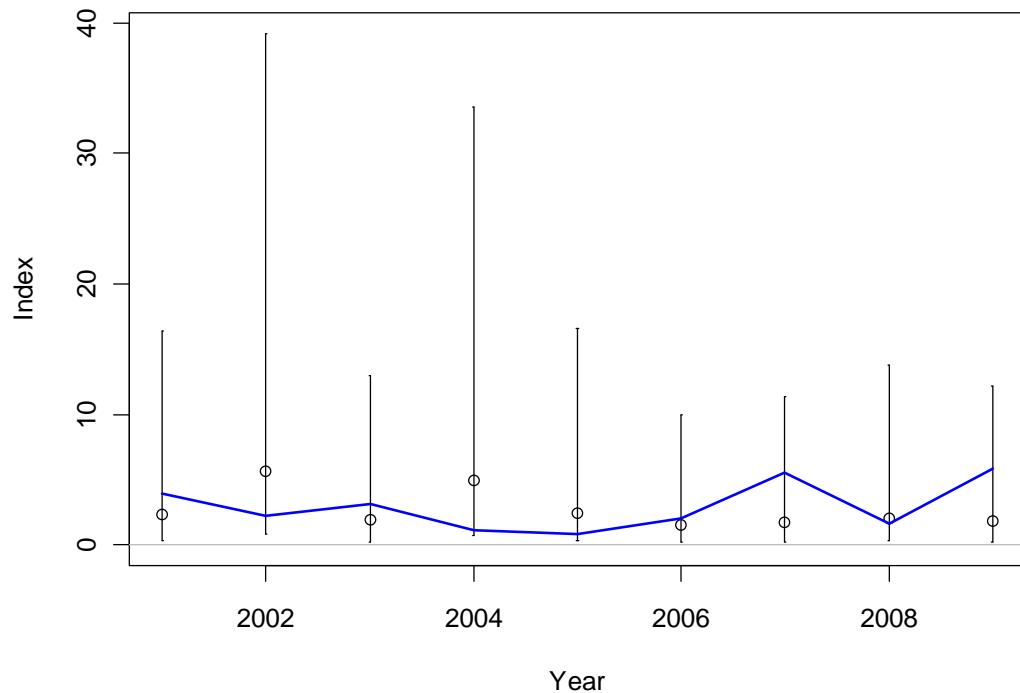


Figure 10. Fit to the coast-wide pre-recruit index.

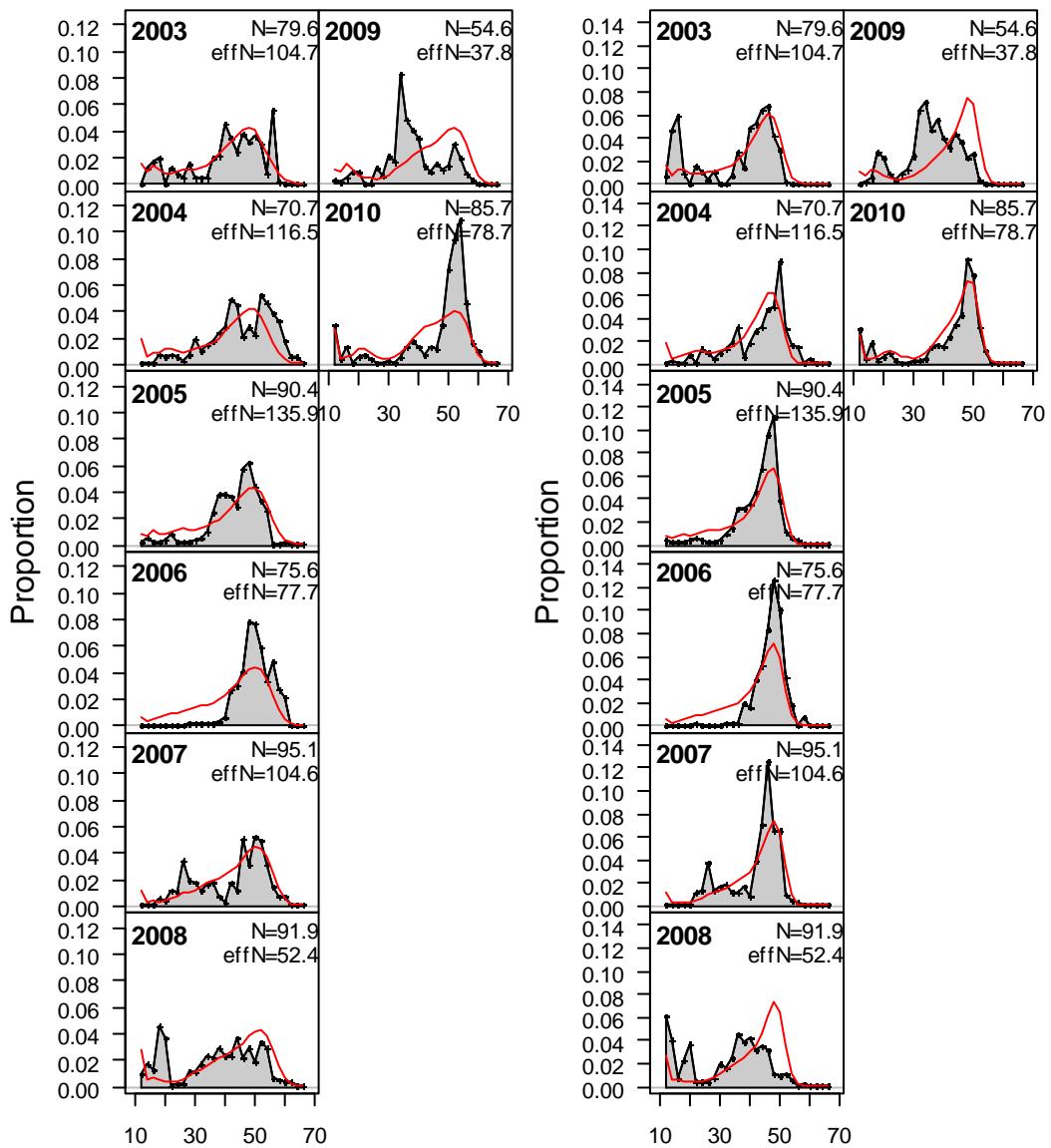


Figure 11. Fit to the NWFSC survey female (left panels) and male (right panels) length-frequencies.

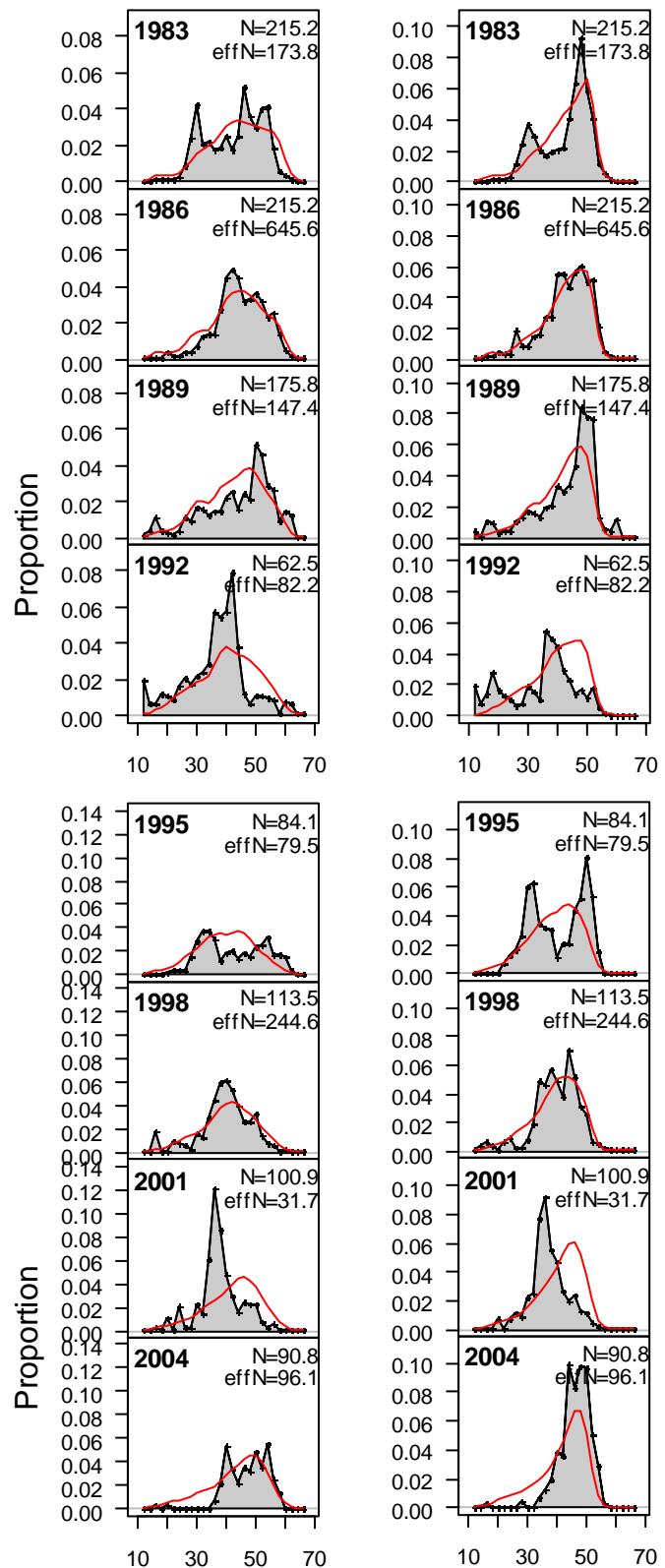


Figure 12. Fit to the triennial survey female (left panels) and male (right panels) length-frequencies; 1980-1992 (upper panels) and 1995-2004 (lower panels).

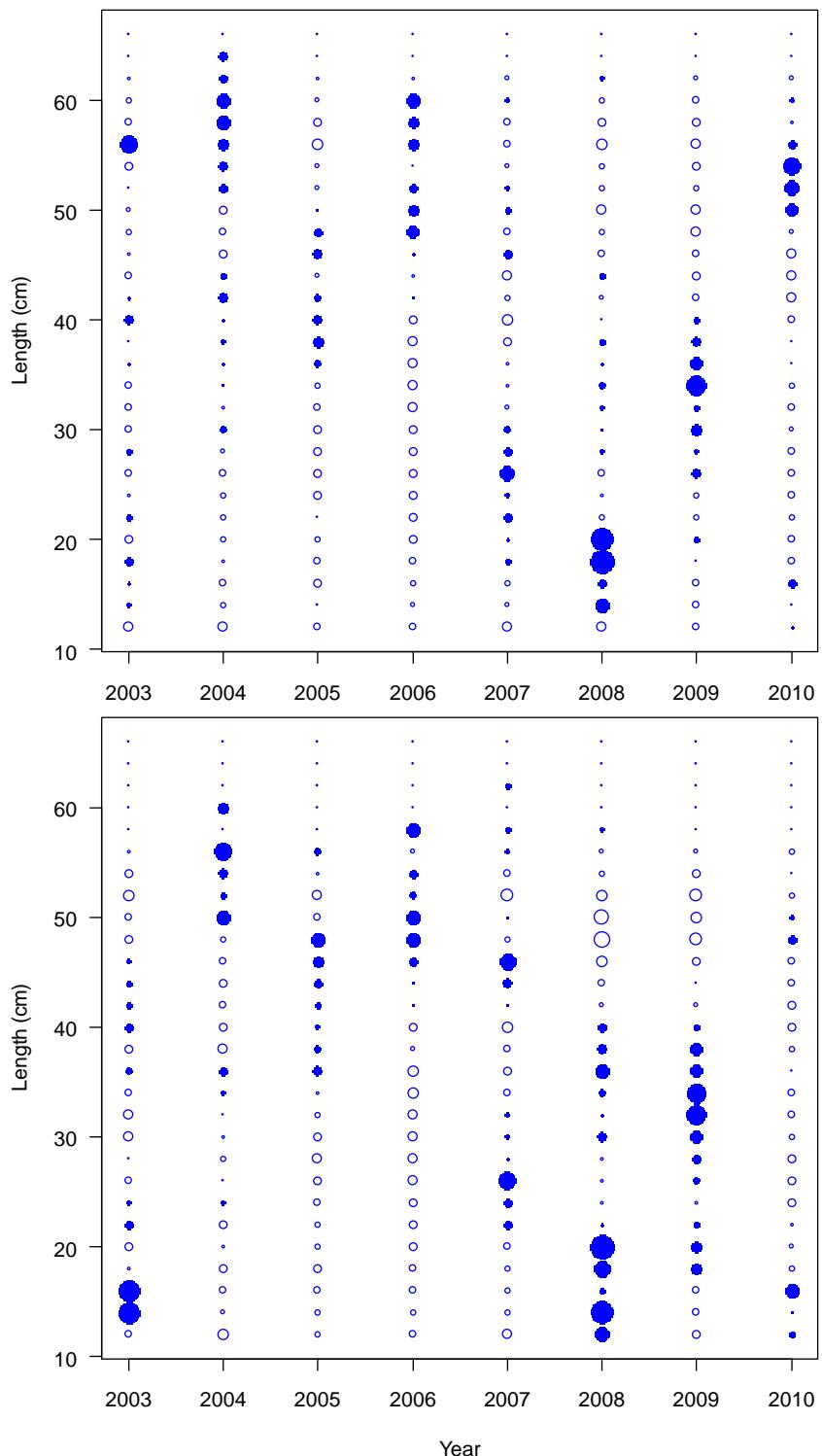


Figure 13. Pearson residuals for the fit to NWFSC survey female (upper panel, maximum = 5.73) and male (lower panel, maximum = 5.01) length-frequencies.

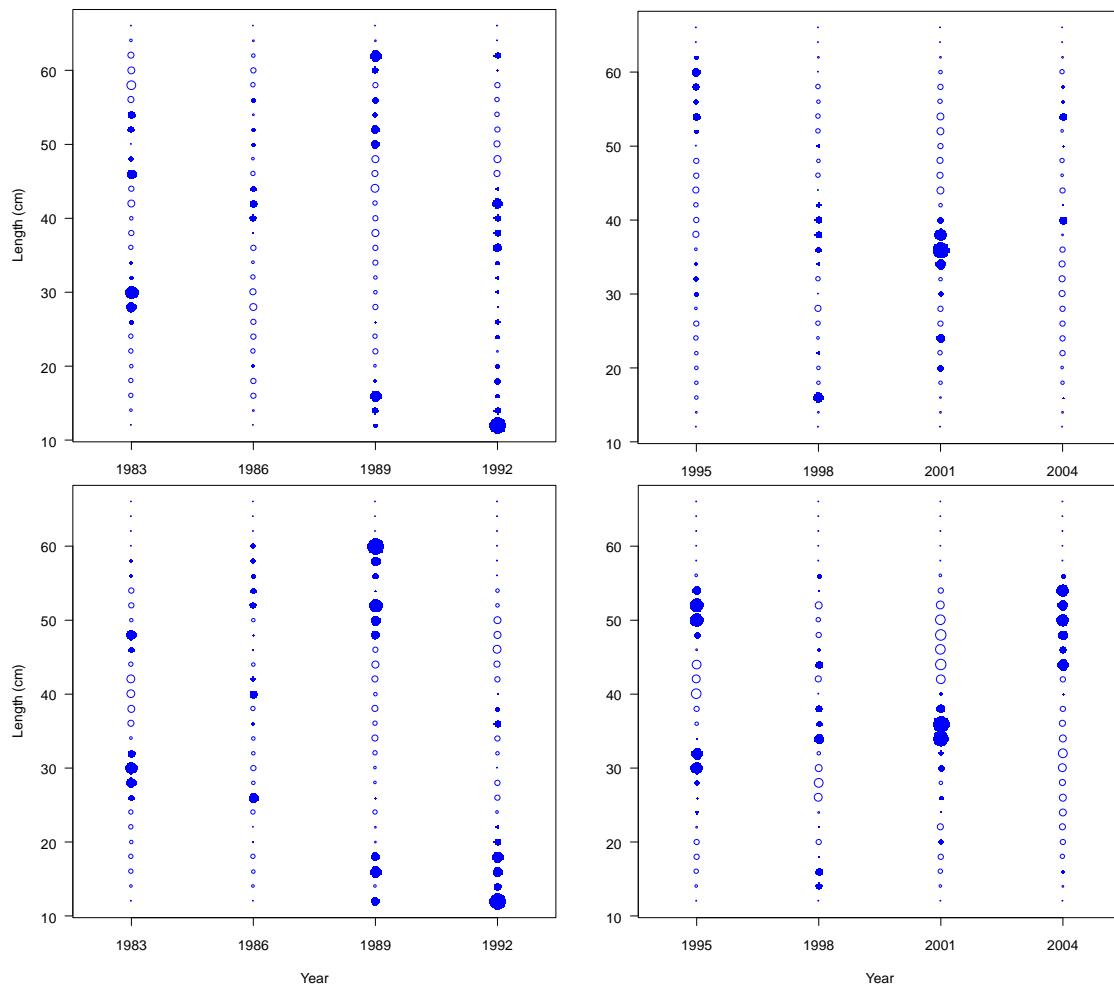


Figure 14. Pearson residuals for the fit to triennial survey female (upper panels, maximum = 4.71, 5.94) and male (lower panels, maximum = 4.78, 3.62) length-frequencies; 1980-1992 (left panels) and 1995-2004 (right panels).

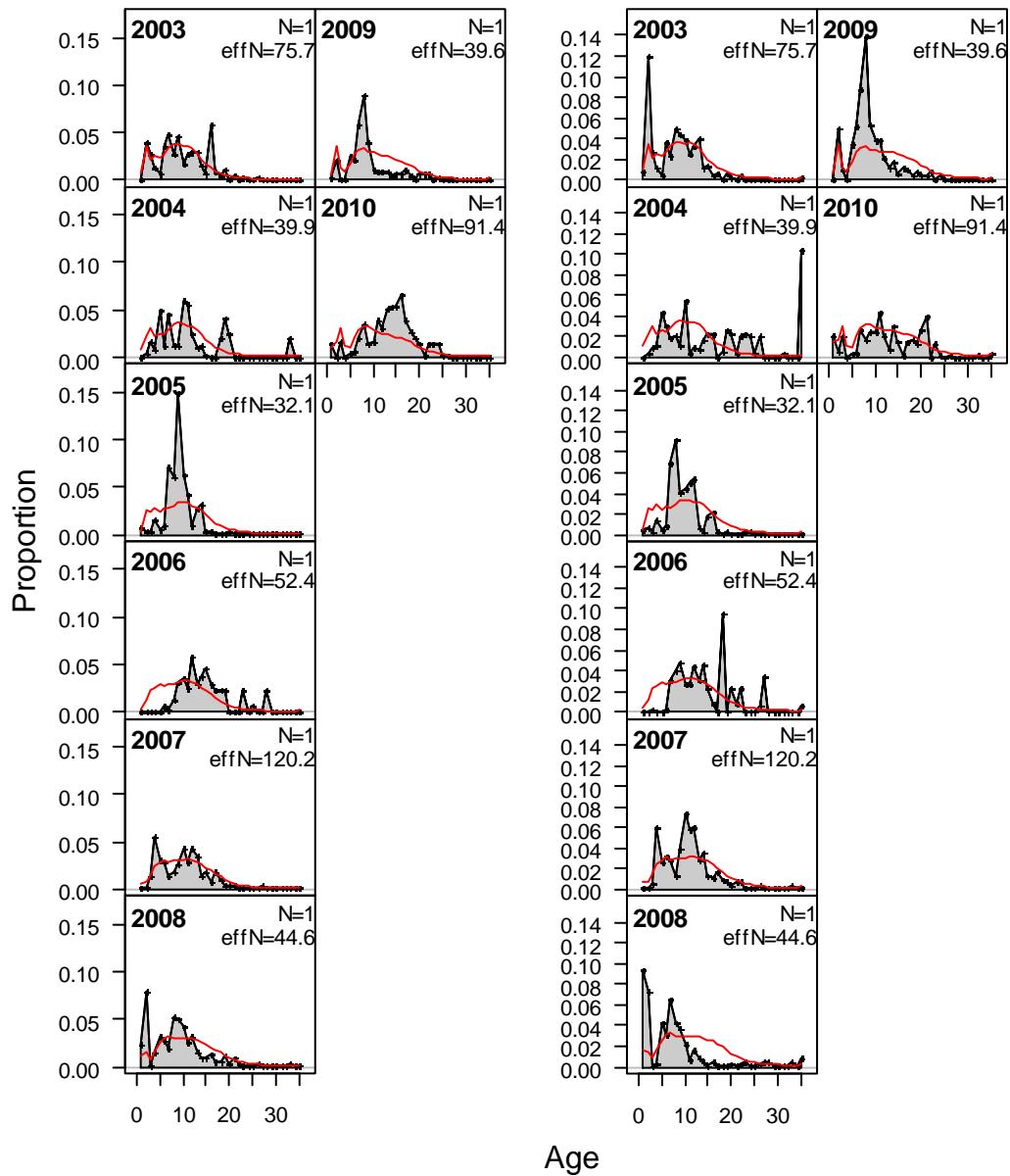


Figure 15. Implied fit to the NWFSC survey female (left panels) and male (right panels) marginal age-frequencies. Fits are provided for evaluation only, but not included in the model likelihood.

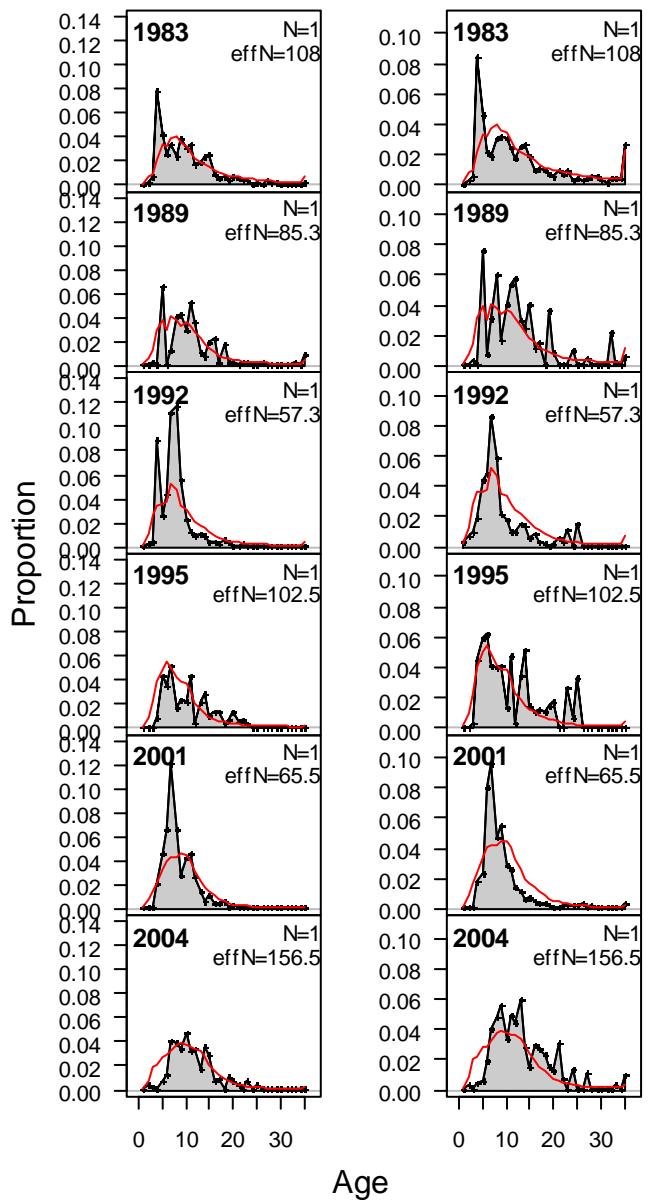


Figure 16. Implied fit to the triennial survey female (left panels) and male (right panels) marginal age-frequencies. Fits are provided for evaluation only, but not included in the model likelihood.

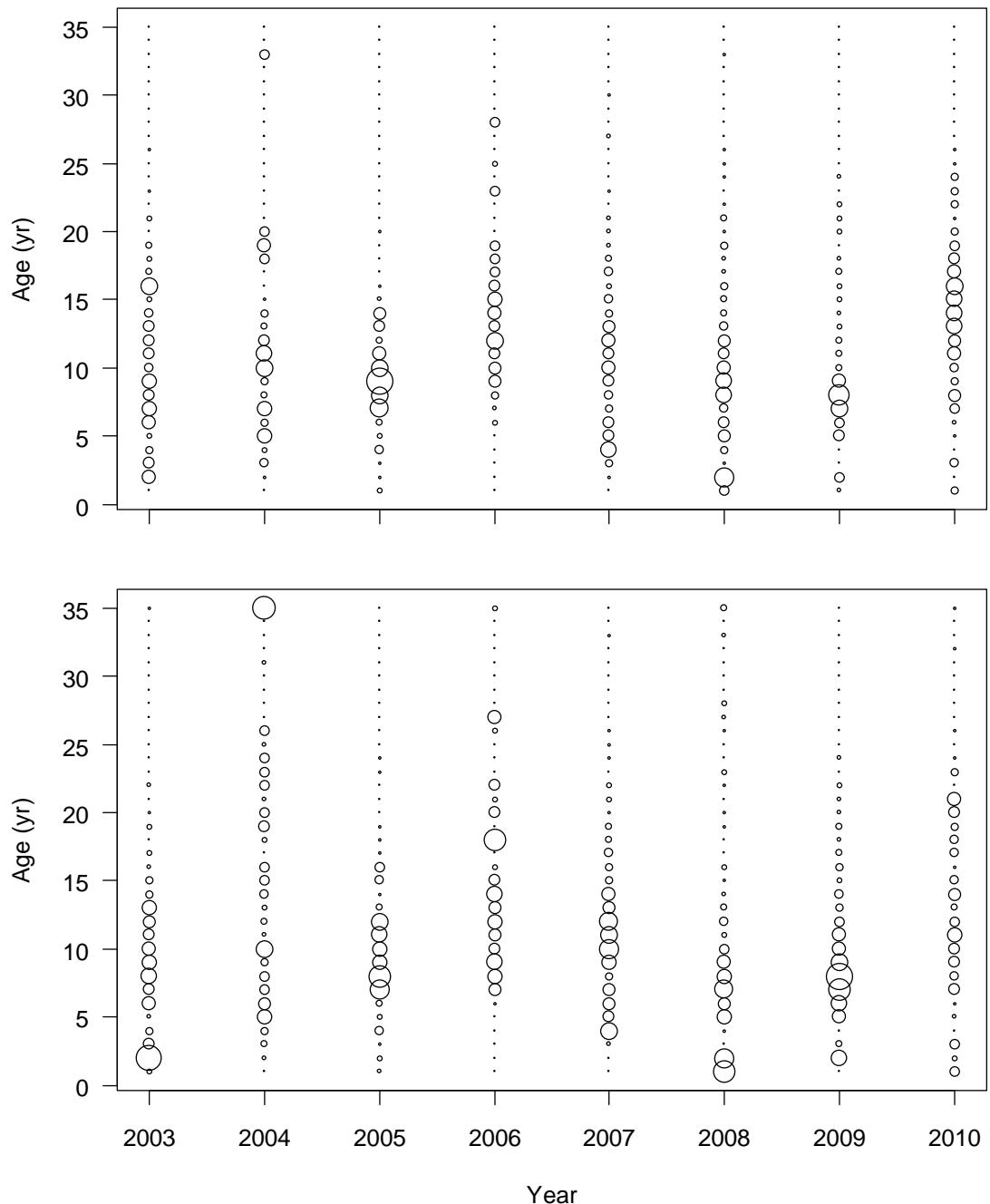


Figure 17. Pearson residuals for the implied fit to the NWFSC survey female (upper panel) and male (lower panel) marginal age-frequencies (for evaluation only, not included in the model fit).

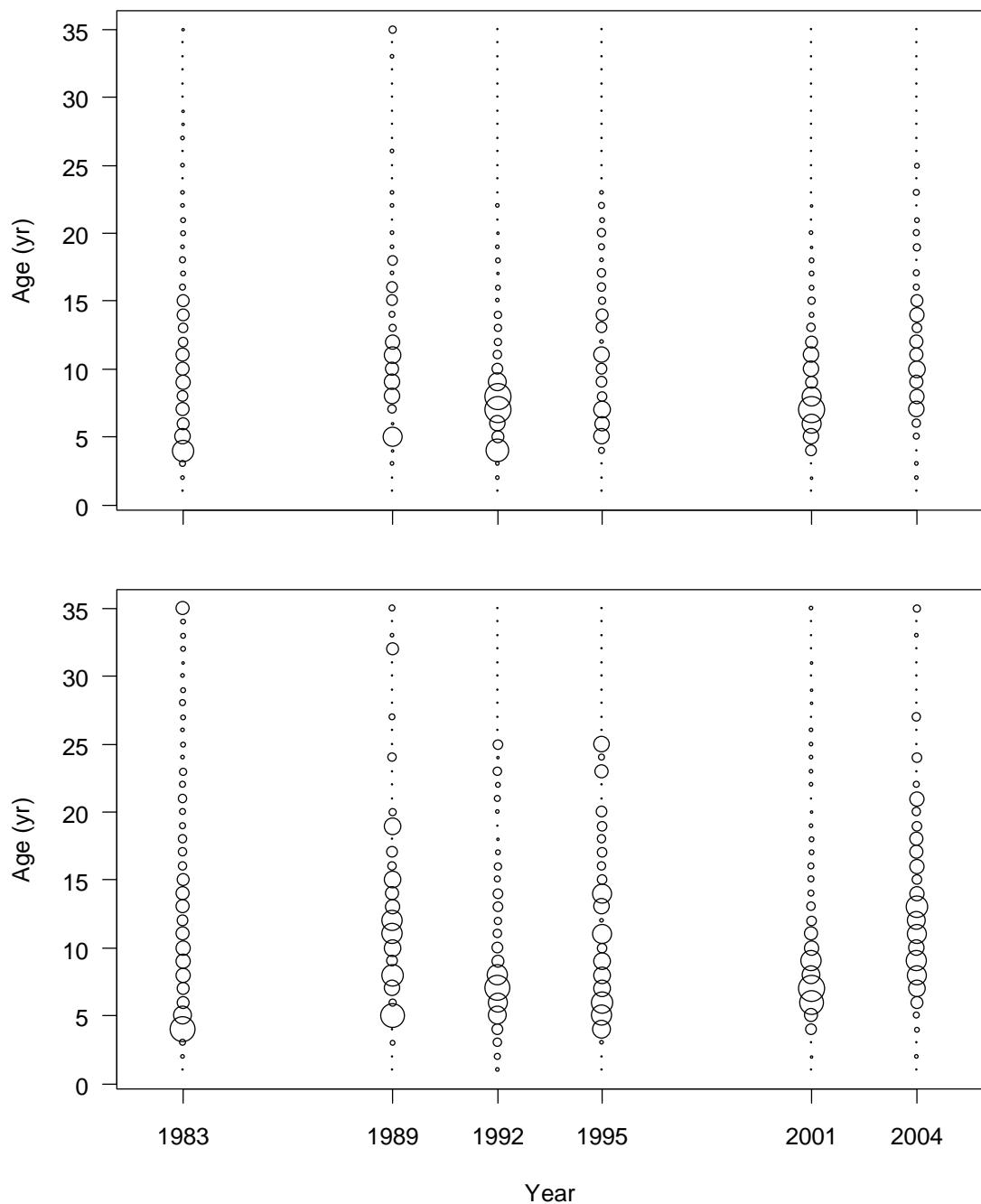


Figure 18. Pearson residuals for the implied fit to the triennial survey female (upper panel) and male (lower panel) marginal age-frequencies (for evaluation only, not included in the model fit).

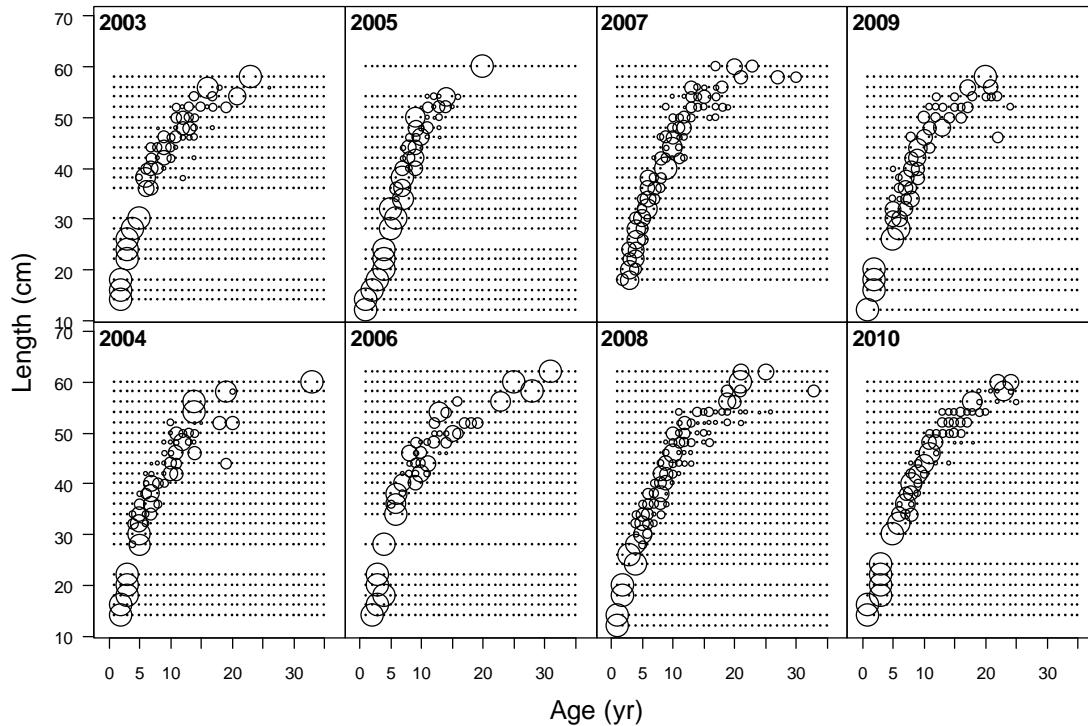


Figure 19. Pearson residuals for the fit to the NWFSC survey female conditional age-at-length frequencies (max = 25.89).

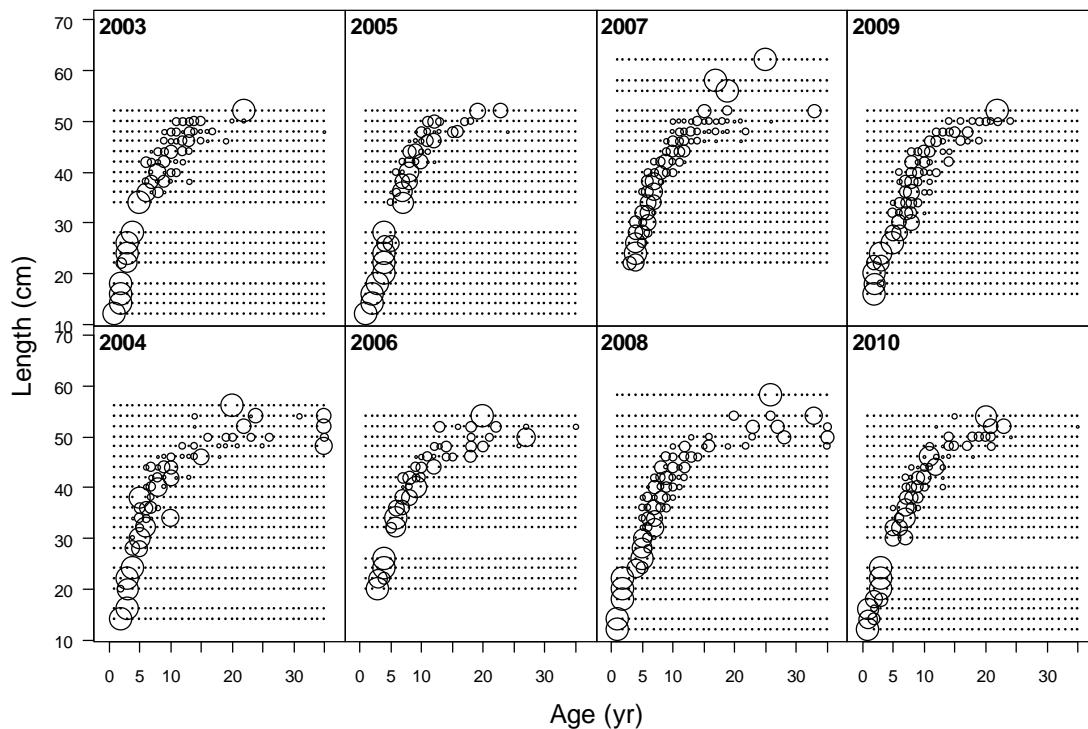


Figure 20. Pearson residuals for the fit to the NWFSC survey male conditional age-at-length frequencies (max = 25.22).

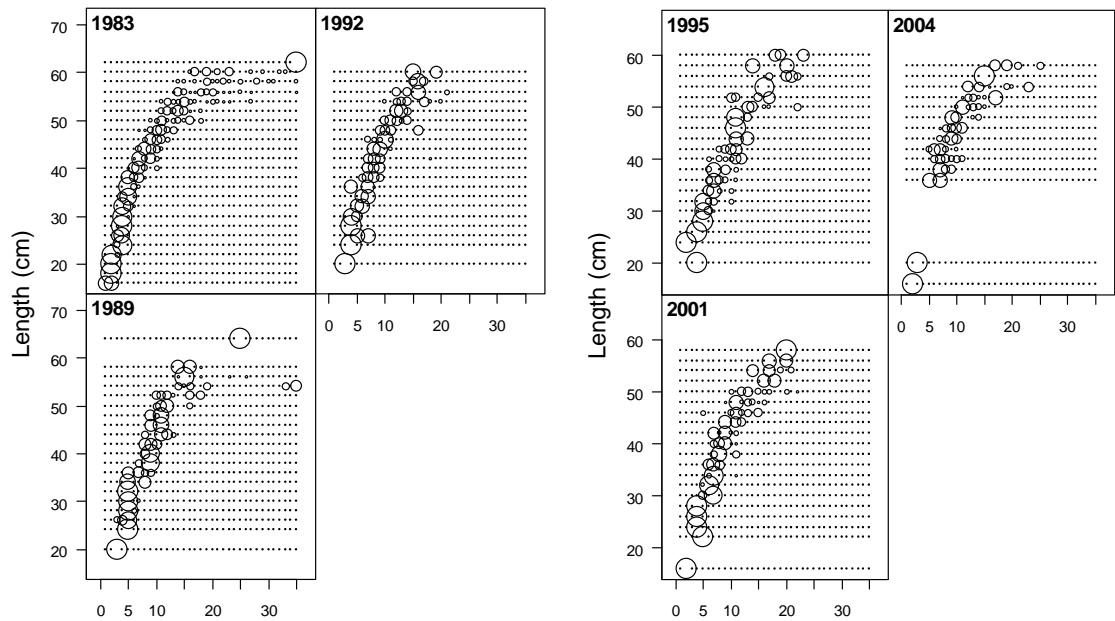


Figure 21. Pearson residuals for the fit to the triennial survey female conditional age-at-length frequencies.

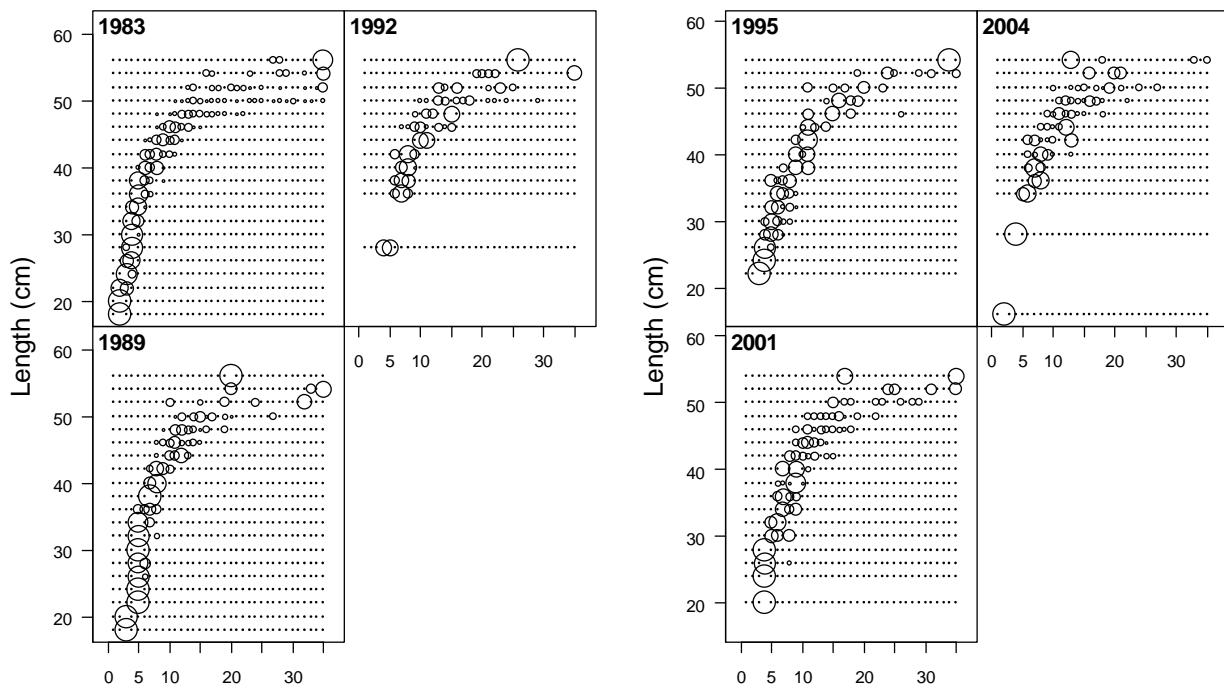


Figure 22. Pearson residuals for the fit to the triennial survey male conditional age-at-length frequencies.

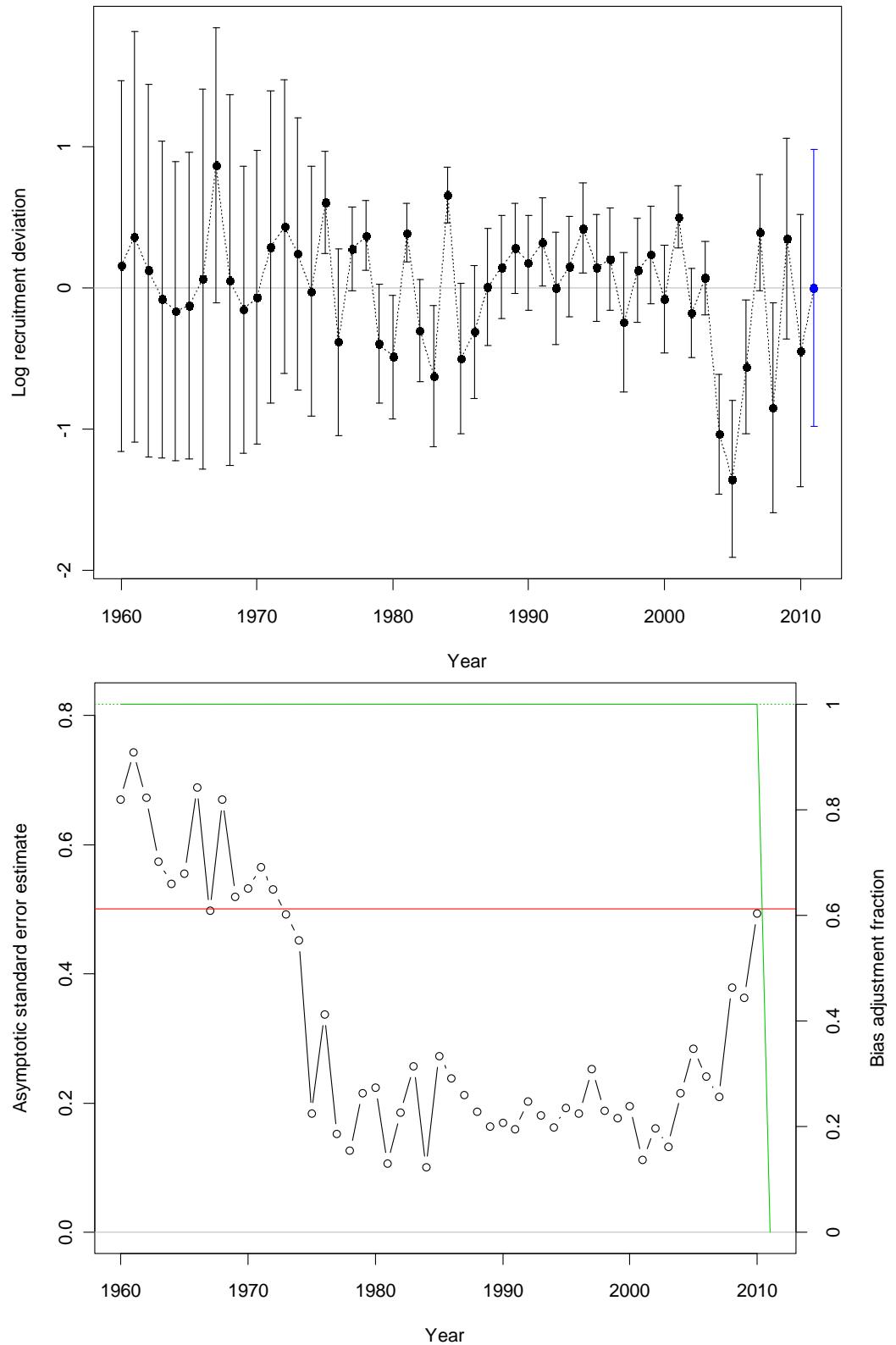


Figure 23. Log recruitment deviations (upper panel) and standard deviations of the recruitent deviations (lower panel) from the base-case model run.

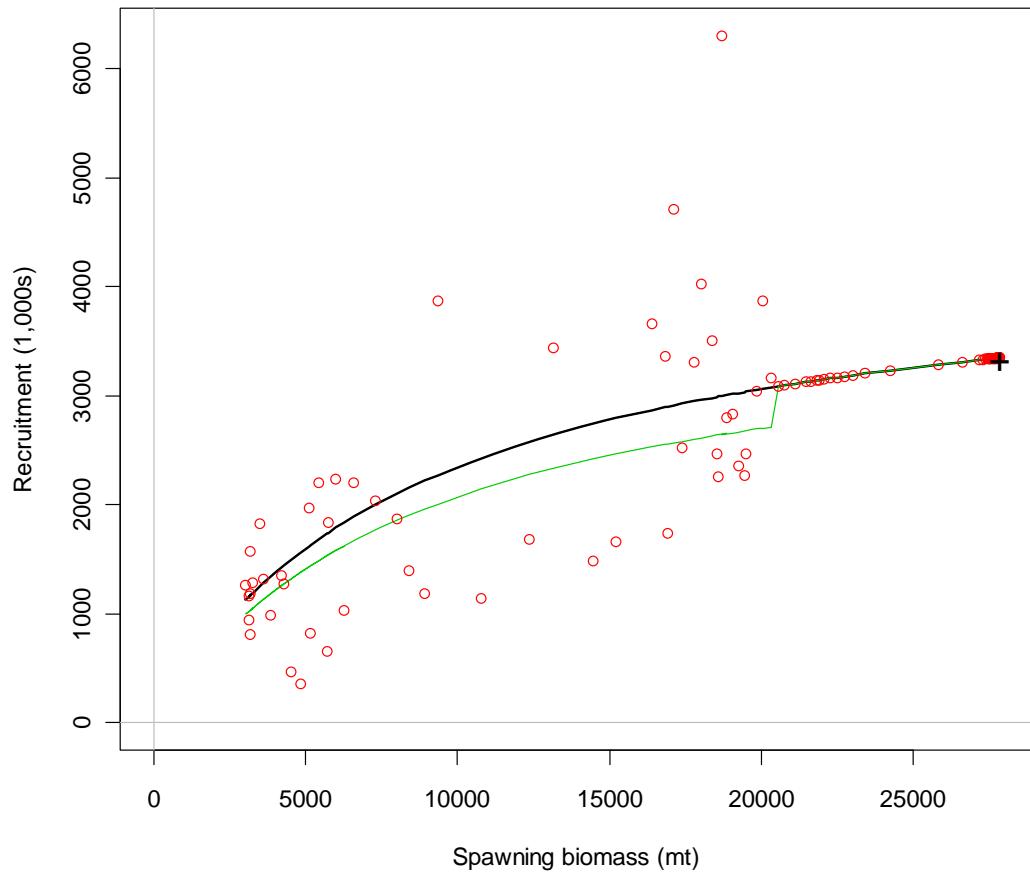


Figure 24. Stock-recruit function with predicted recruitments (points) and bias-corrected expectation (light line).

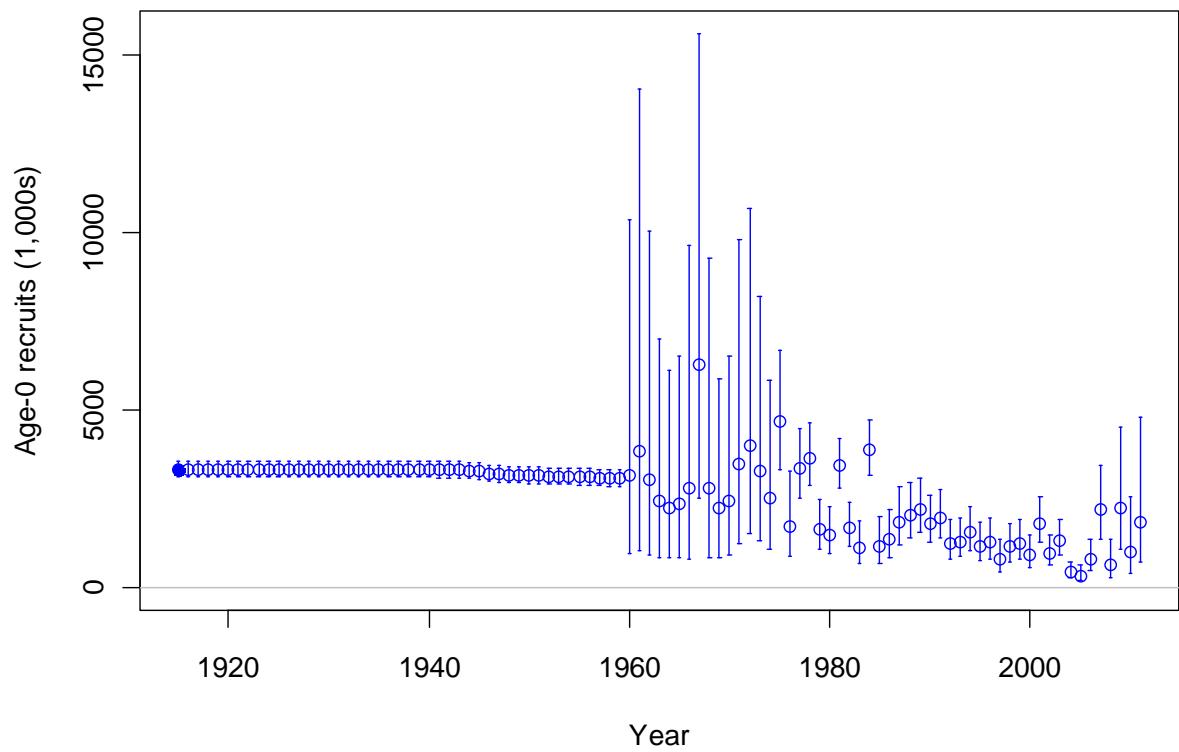


Figure 25. Time series of estimated canary rockfish recruitments for the base-case model (circles), approximate asymptotic 95% confidence interval (error bars).

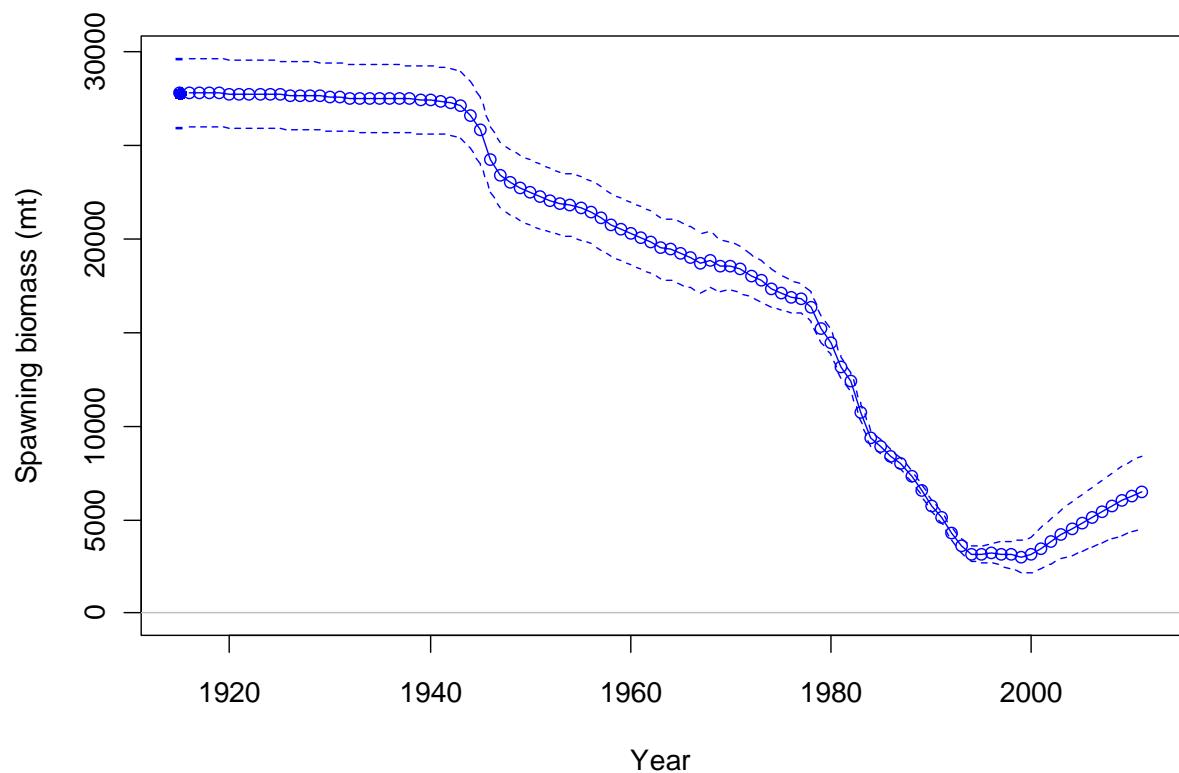


Figure 26. Estimated spawning biomass time-series (1916-2011) for the base-case model (circles) with approximate asymptotic 95% confidence interval (dashed lines).

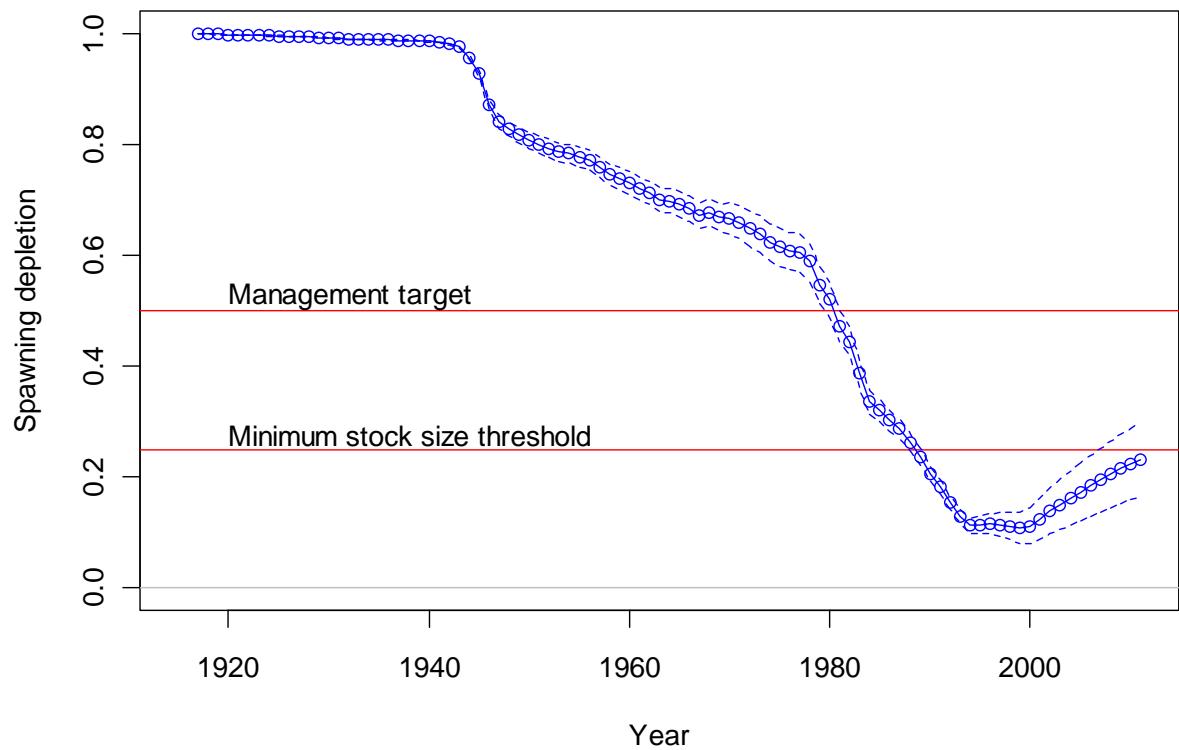


Figure 27. Time series of depletion level as estimated in the base-case model (circles) with approximate asymptotic 95% confidence interval (dashed lines).

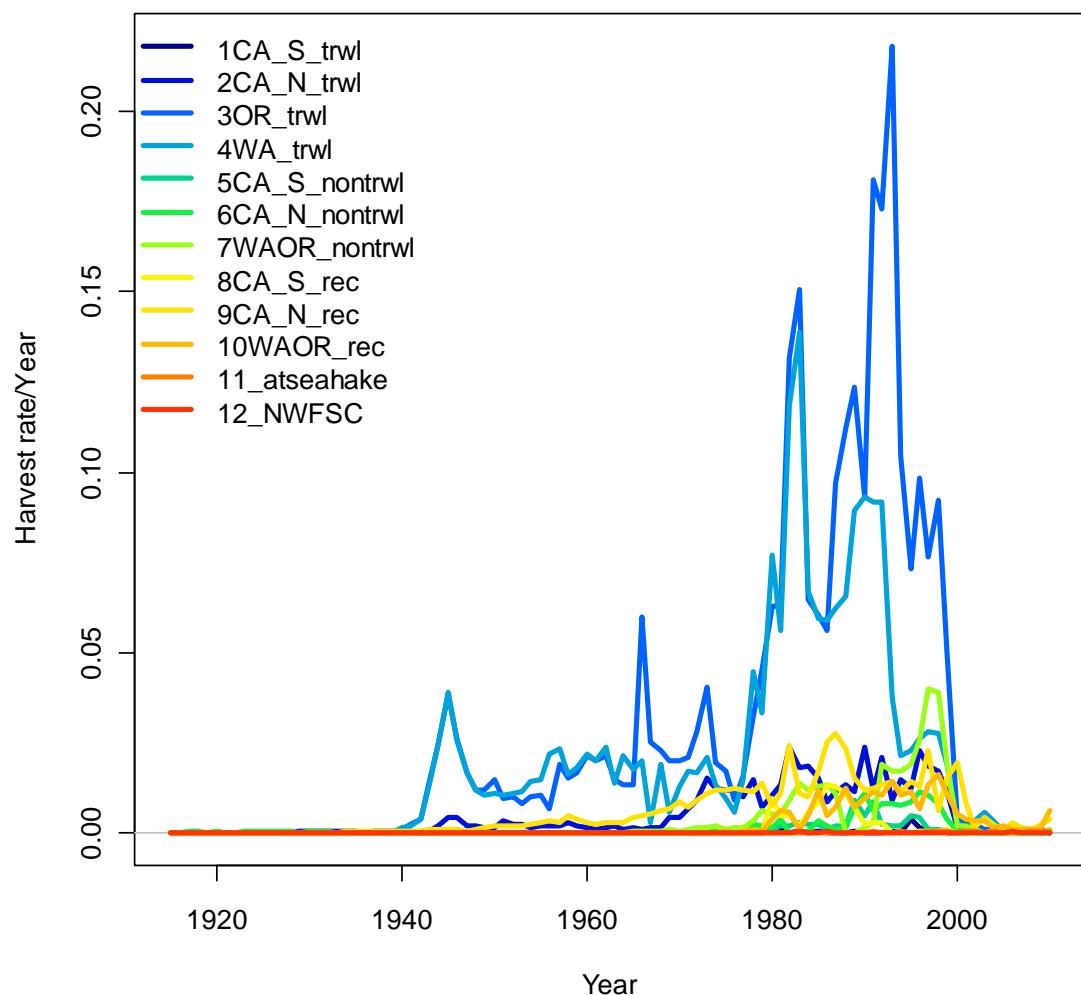


Figure 28. Time-series of harvest rate per year (F) for the fishing fleets. The Oregon trawl fleet is the upper line from 1979-1999 and the Washington trawl fleet is the second highest line 1983-1996.

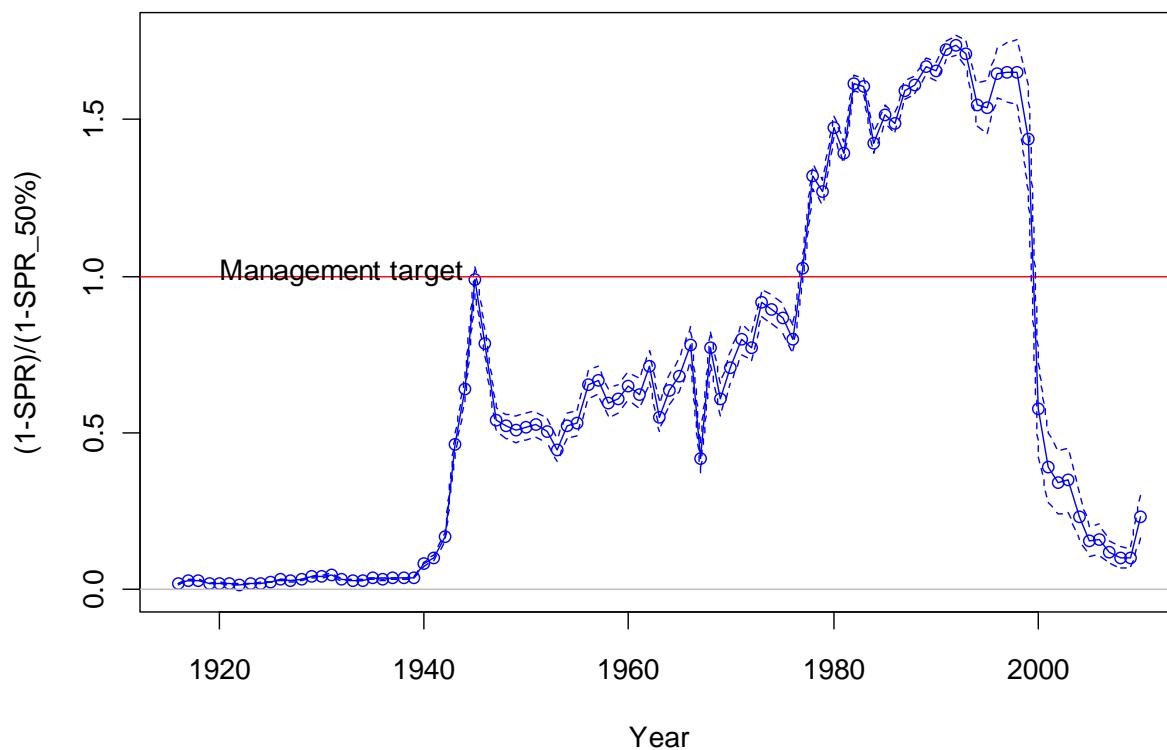


Figure 29. Time series of relative spawning potential ratio ( $(1-\text{SPR})/(1-\text{SPR}_{\text{Target}=0.5})$ ) for the base-case model (circles) and alternate states of nature (light lines). Values of relative SPR above 100% reflect harvests in excess of the current overfishing proxy.

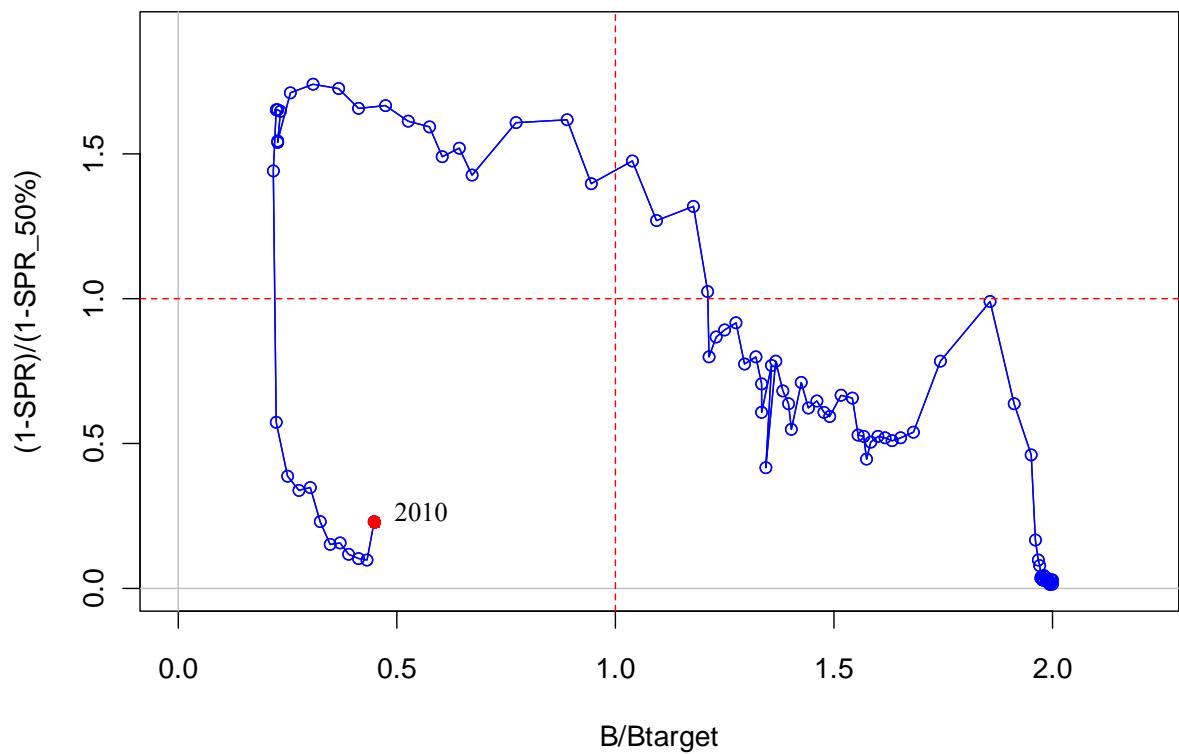


Figure 30. Estimated relative spawning potential ratio relative to the proxy target/limit of 50% vs. estimated spawning biomass relative to the proxy 40% level from the base-case model. Higher biomass occurs on the right side of the x-axis, higher exploitation rates occur on the upper side of the y-axis.

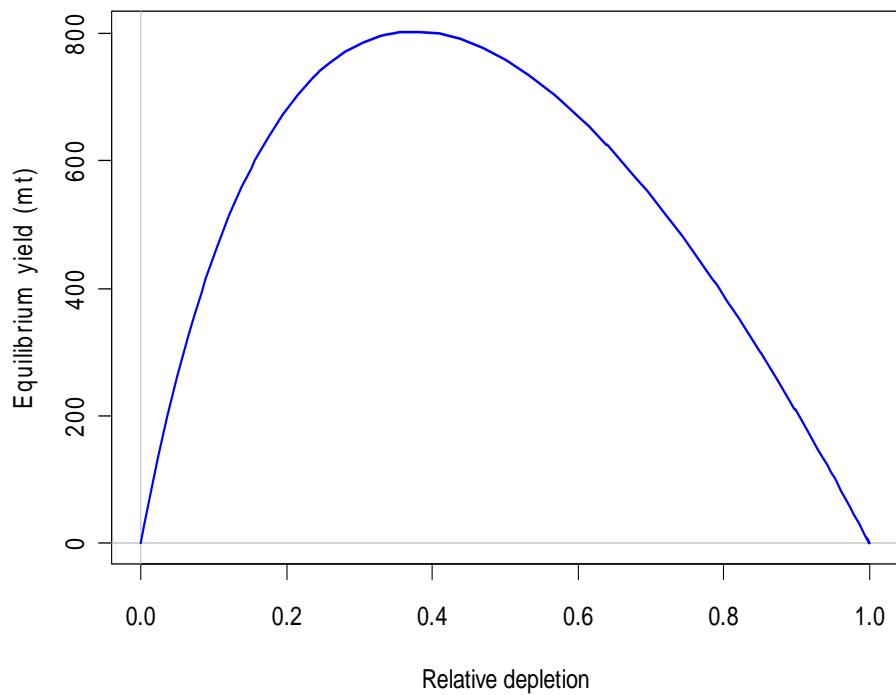


Figure 31. Equilibrium yield curve for the base-case model. Values are based on end year of the model.

## **12. Appendix A: Fits to fishery length and age data**

In this appendix, plots of the fit to compositional data are presented for length and age data by fishing fleet.

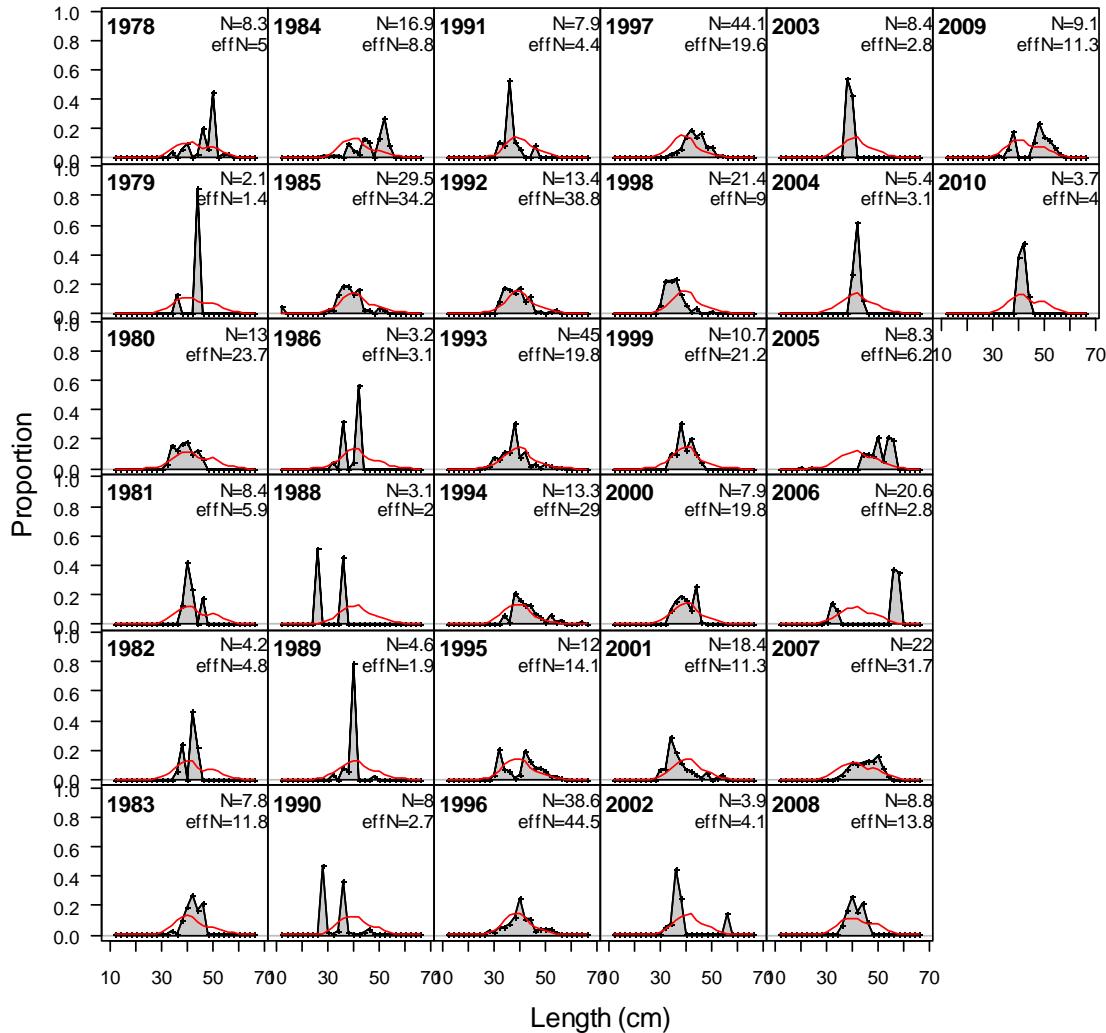


Figure A1. Fit to length-frequency observations (sexes combined) for the Southern California trawl fleet.

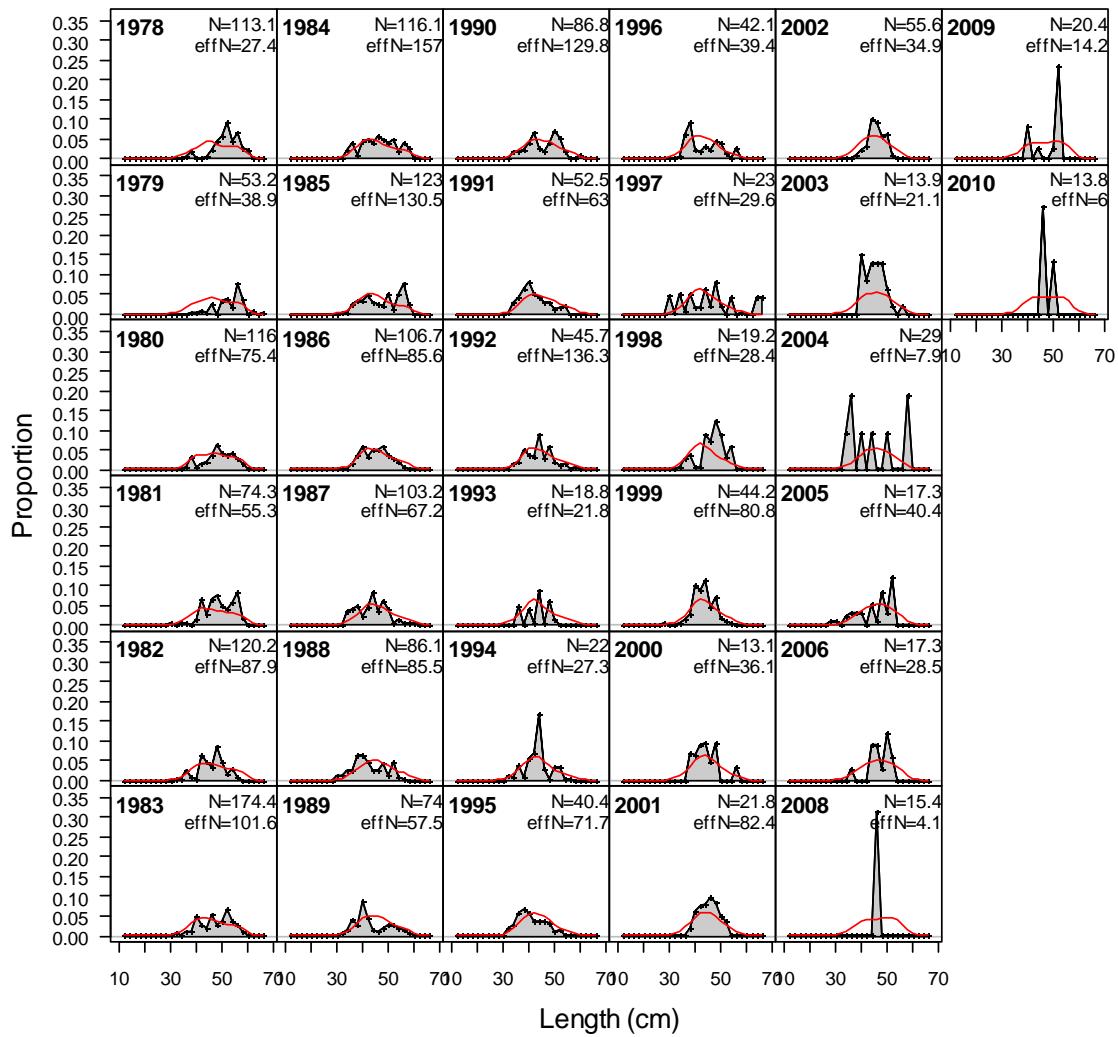


Figure A2. Fit to female length-frequency observations for the Northern California trawl fleet.

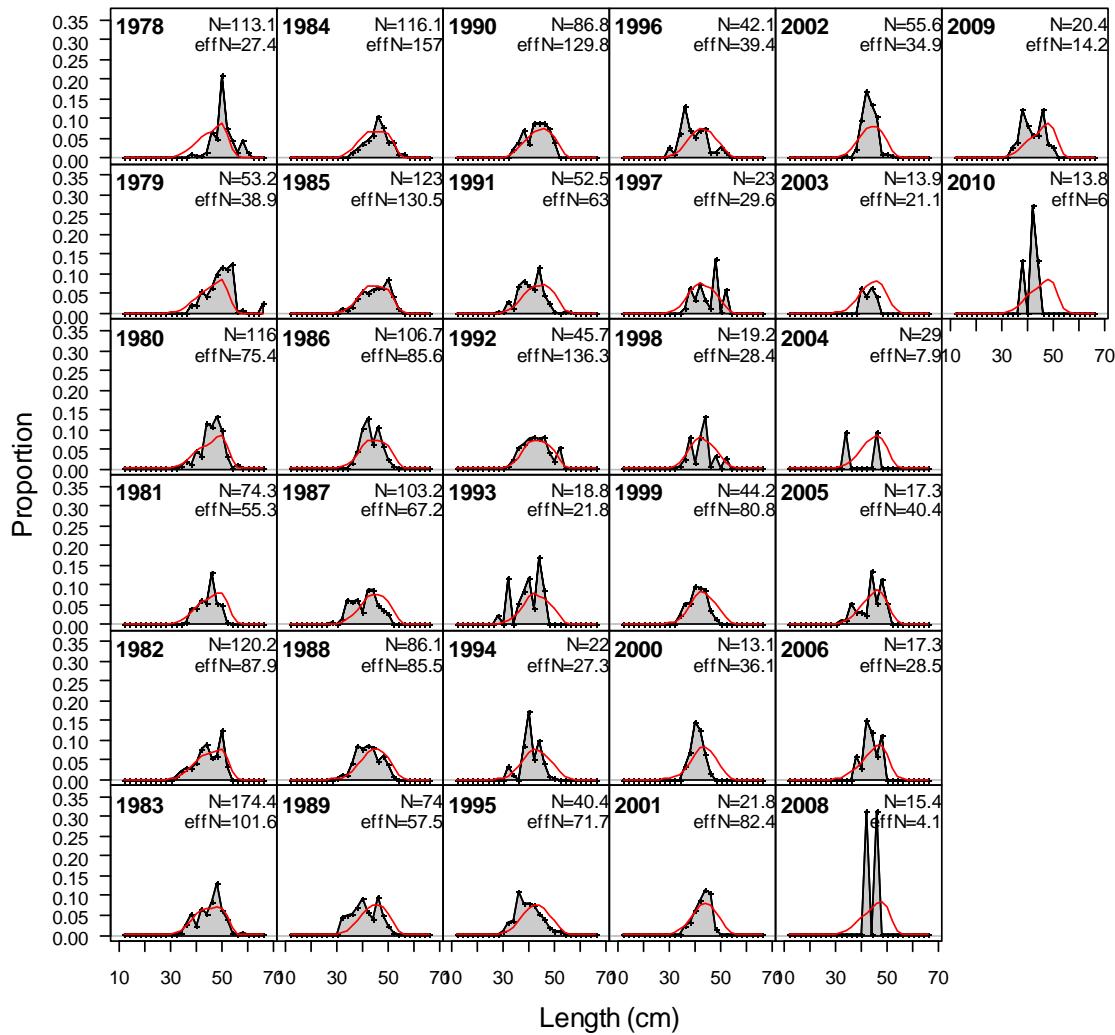


Figure A3. Fit to male length-frequency observations for the Northern California trawl fleet.

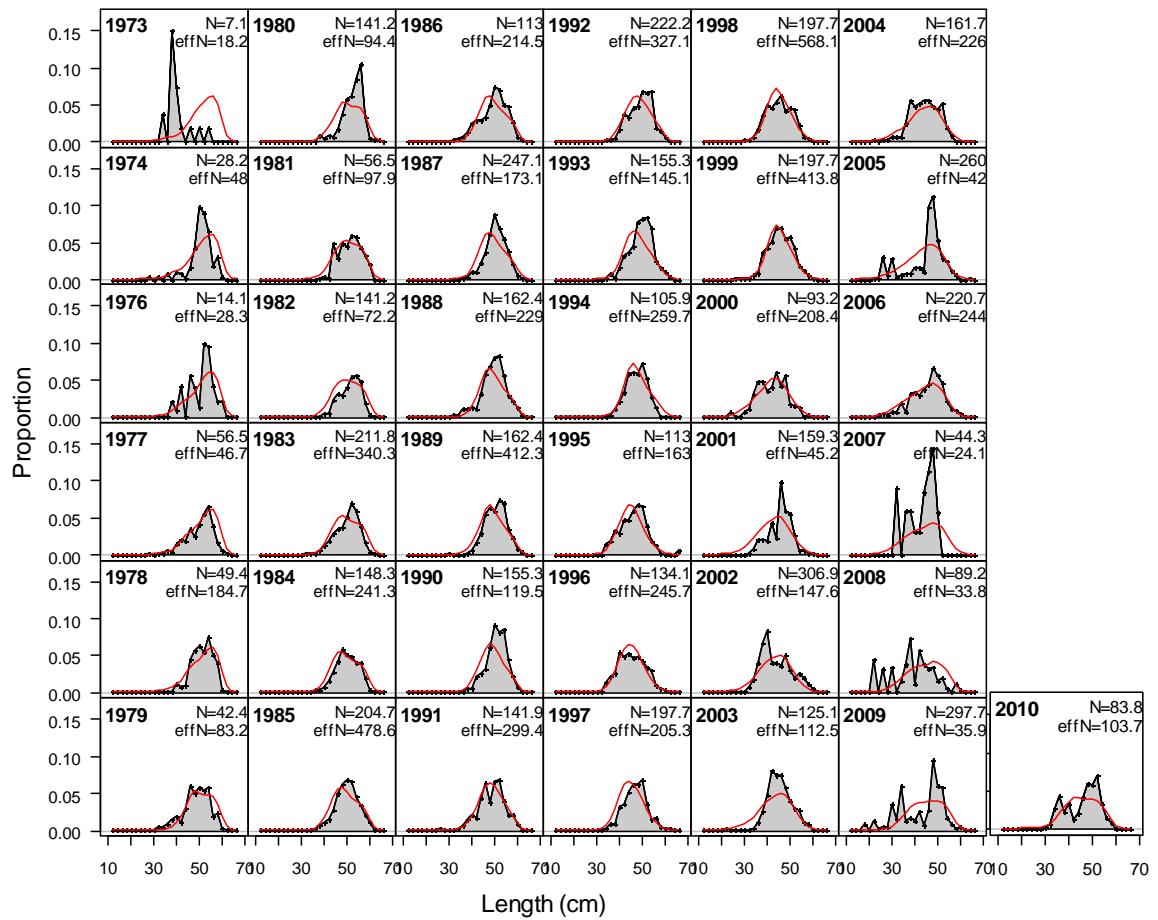


Figure A4. Fit to female length-frequency observations for the Oregon trawl fleet.

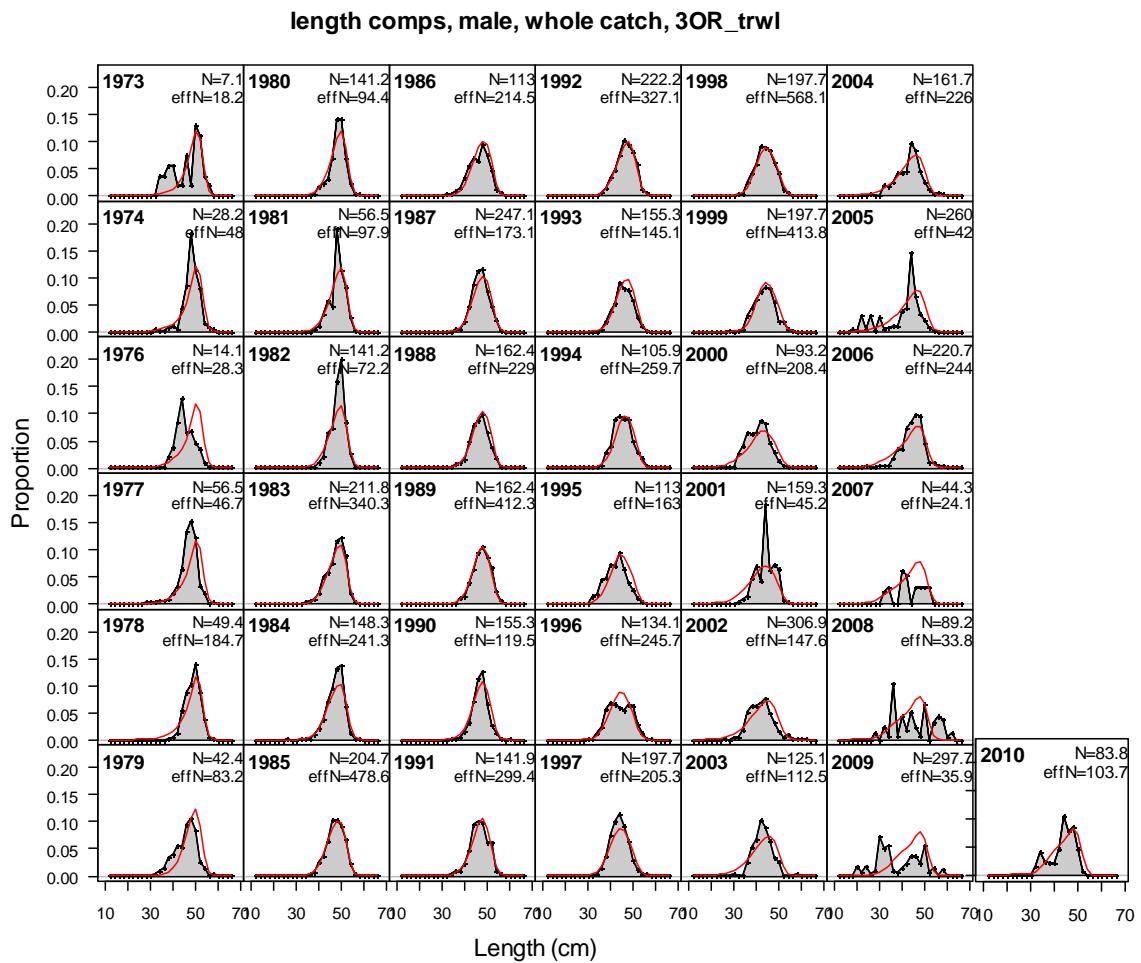


Figure A5. Fit to male length-frequency observations for the Oregon trawl fleet.

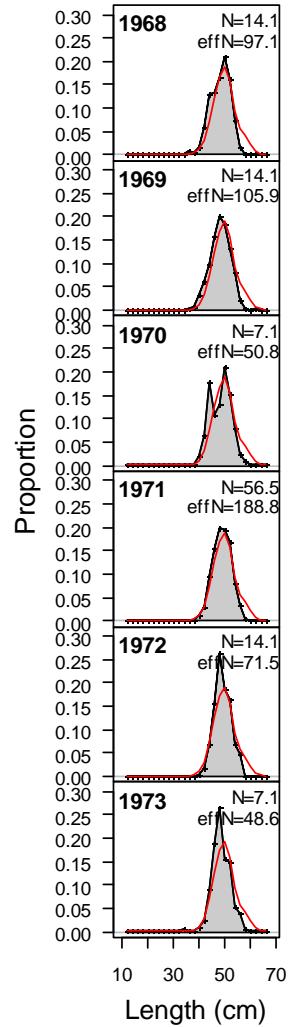


Figure A6. Fit to combined sex length-frequency observations for the historical Washington trawl fleet.

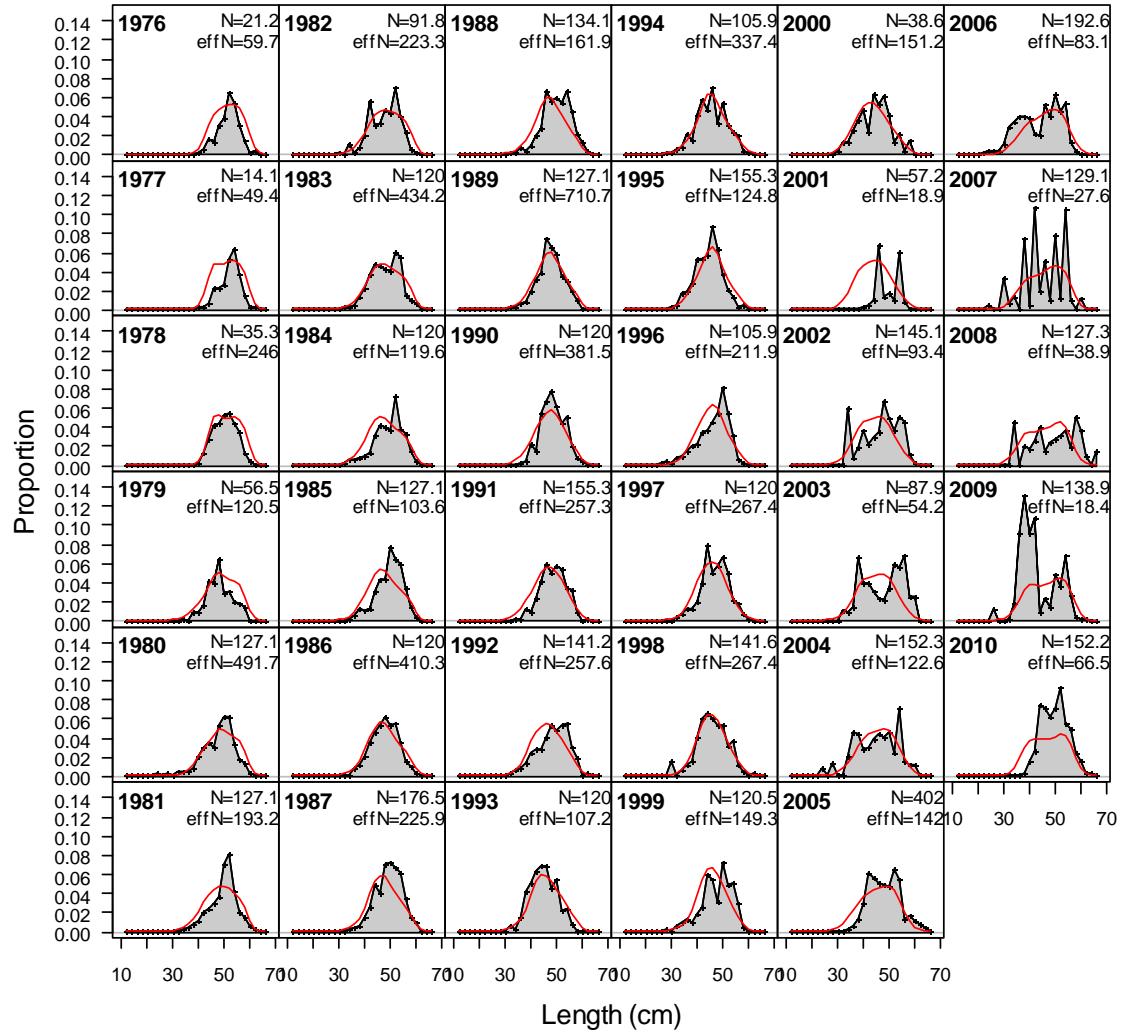


Figure A7. Fit to female length-frequency observations for the Washington trawl fleet.

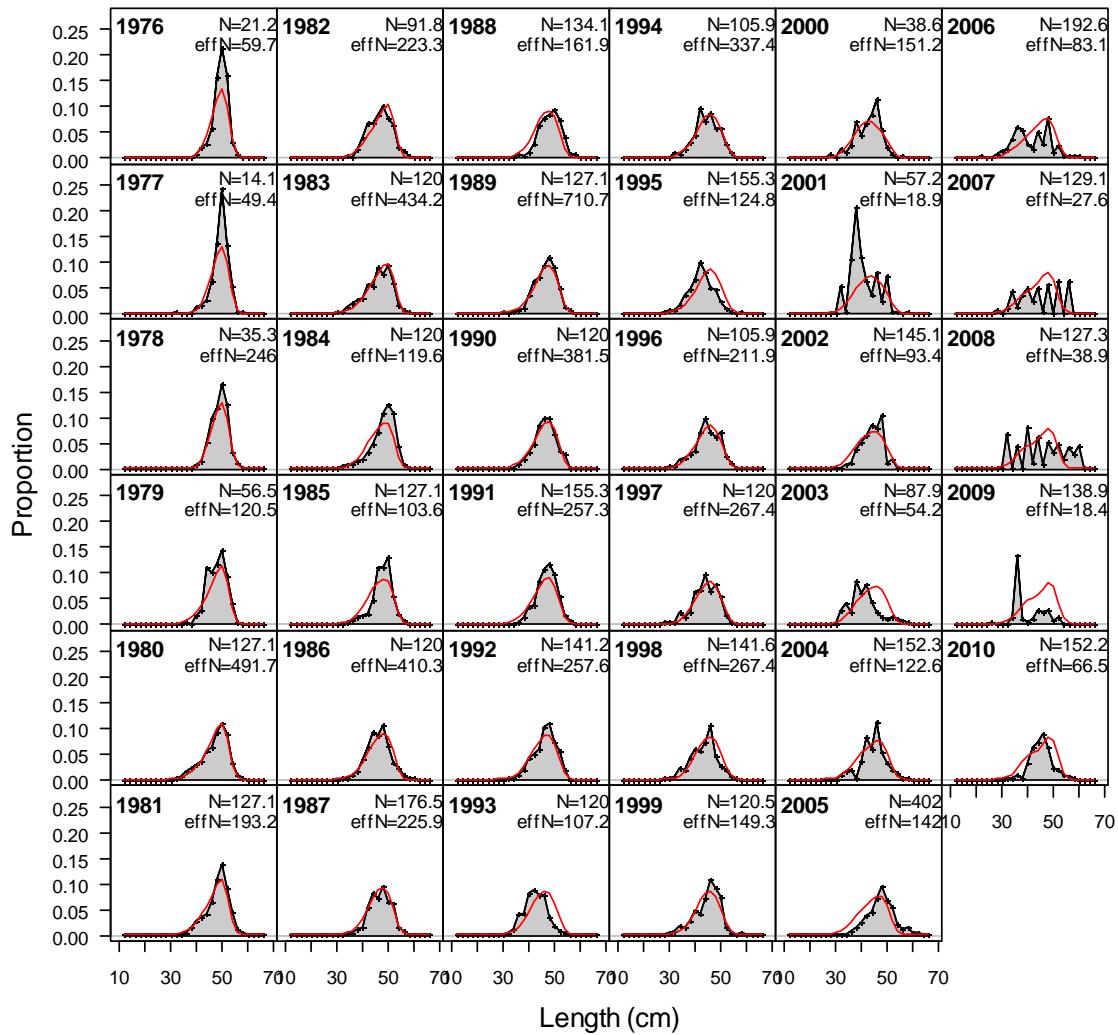


Figure A8. Fit to male length-frequency observations for the Washington trawl fleet.

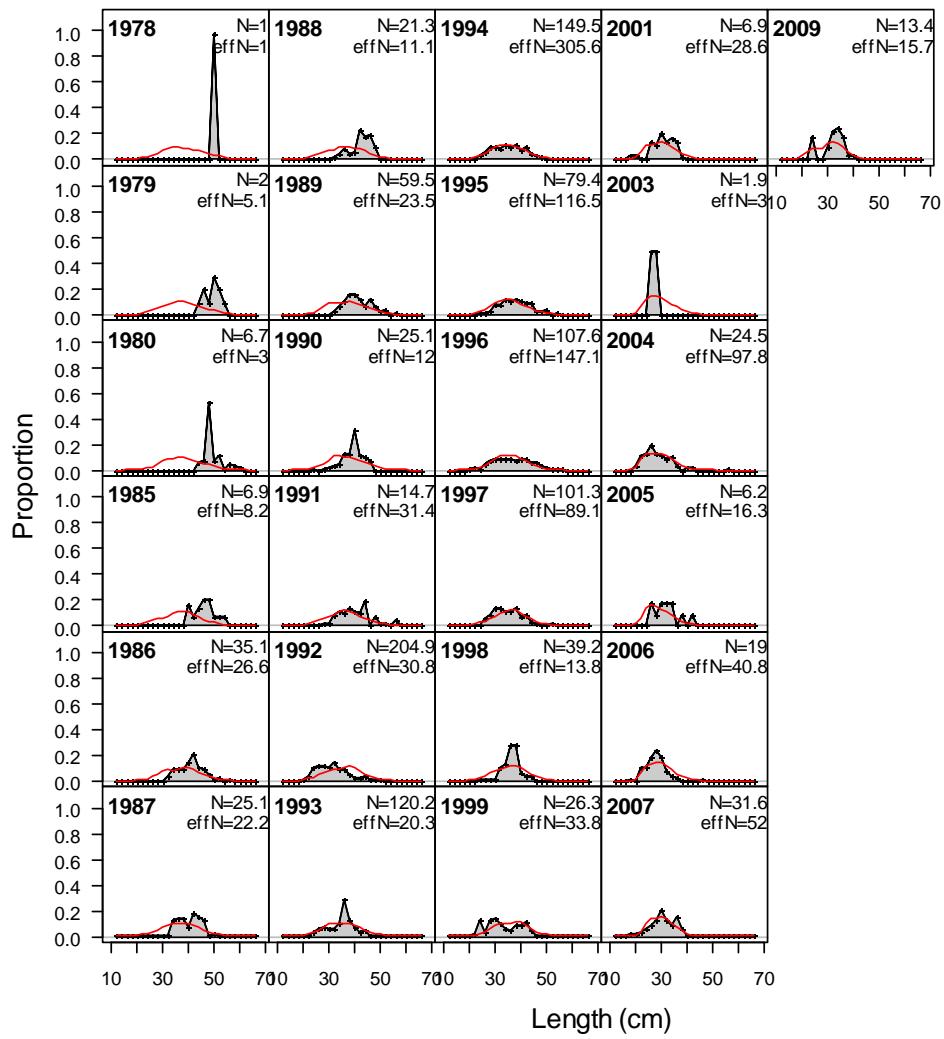


Figure A9. Fit to sexes combined length-frequency observations for the southern California non-trawl fleet.

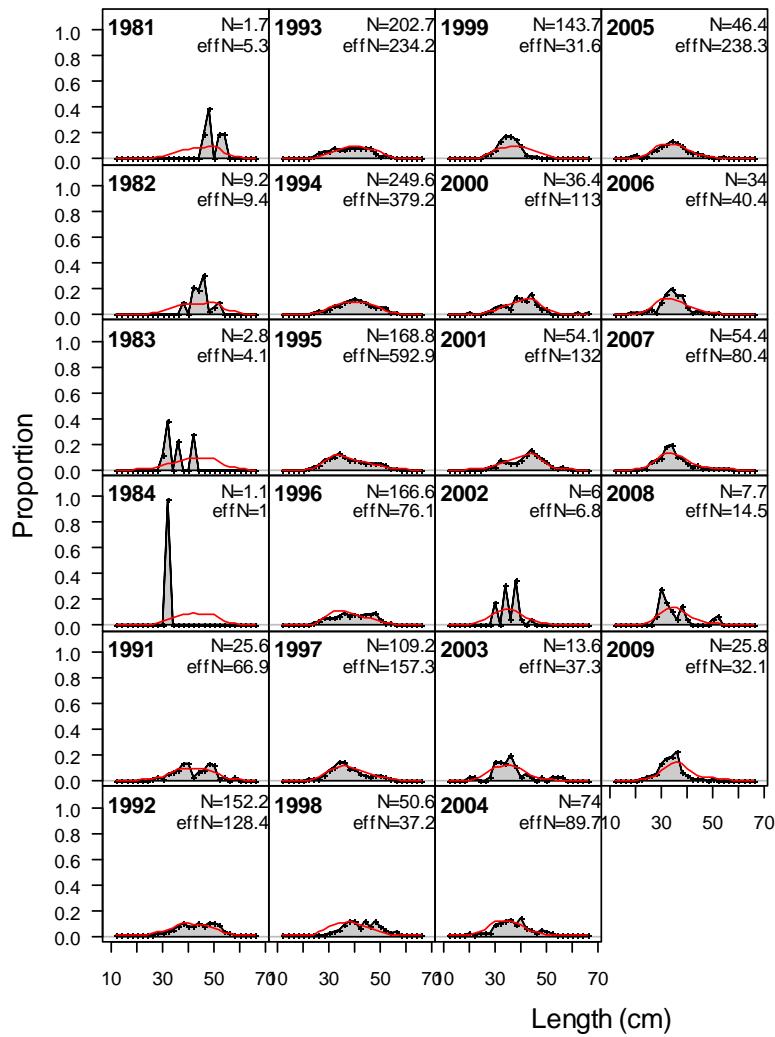


Figure A10. Fit to sexes combined length-frequency observations for the northern California non-trawl fleet.

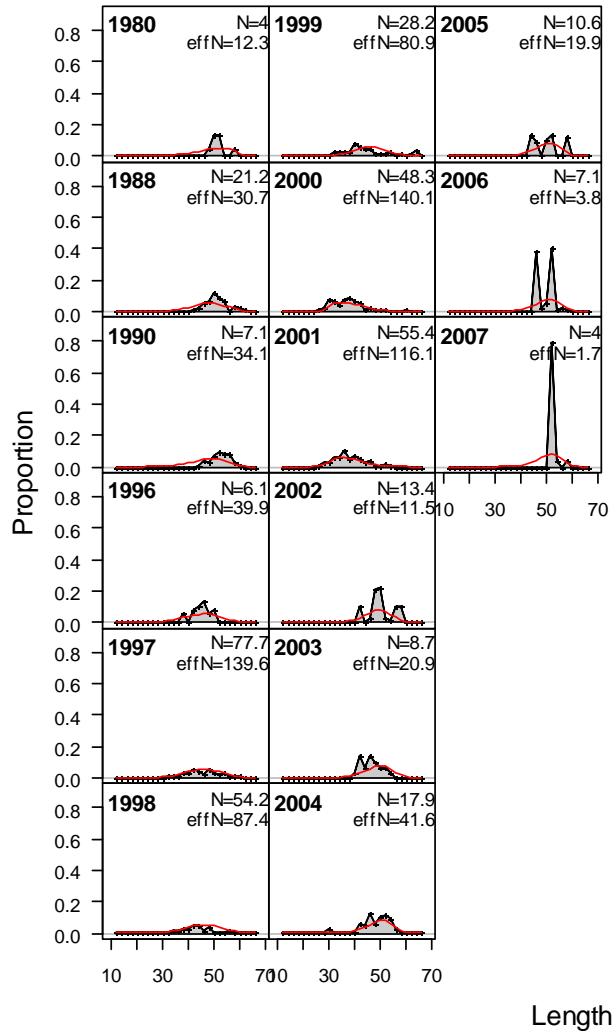


Figure A11. Fit to female length-frequency observations for the Oregon-Washington non-trawl fleet.

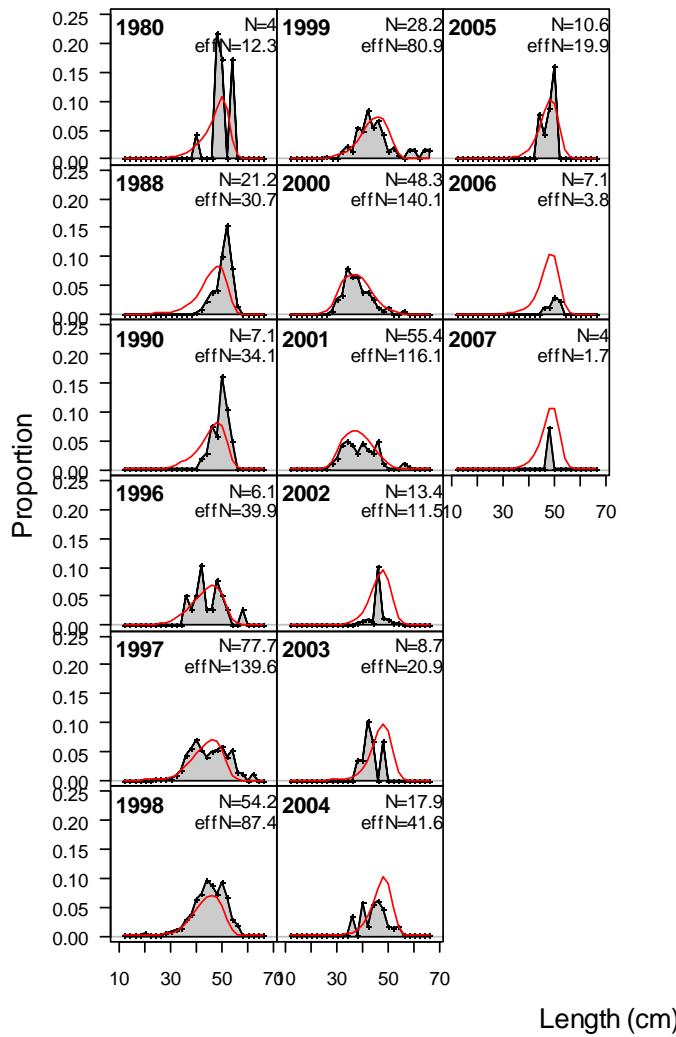


Figure A12. Fit to male length-frequency observations for the Oregon-Washington non-trawl fleet.

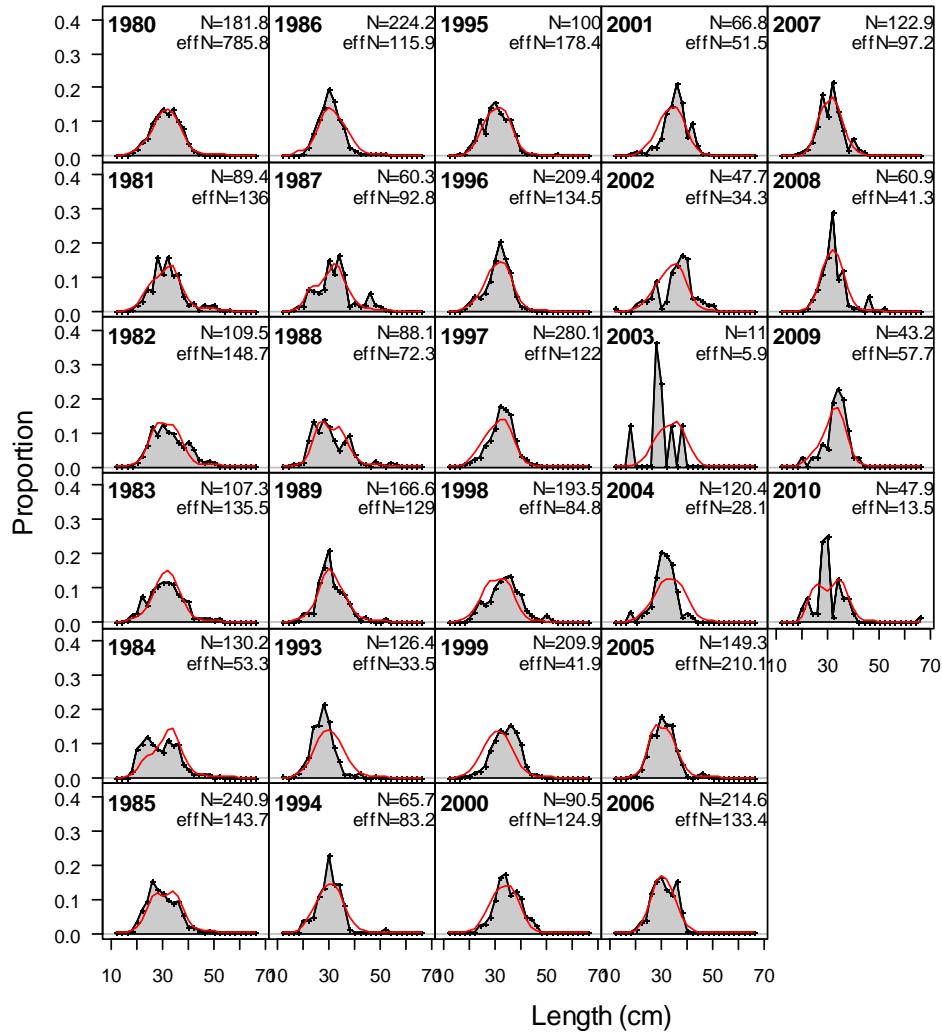


Figure A13. Fit to combined sex length-frequency observations for the southern California recreational fleet.

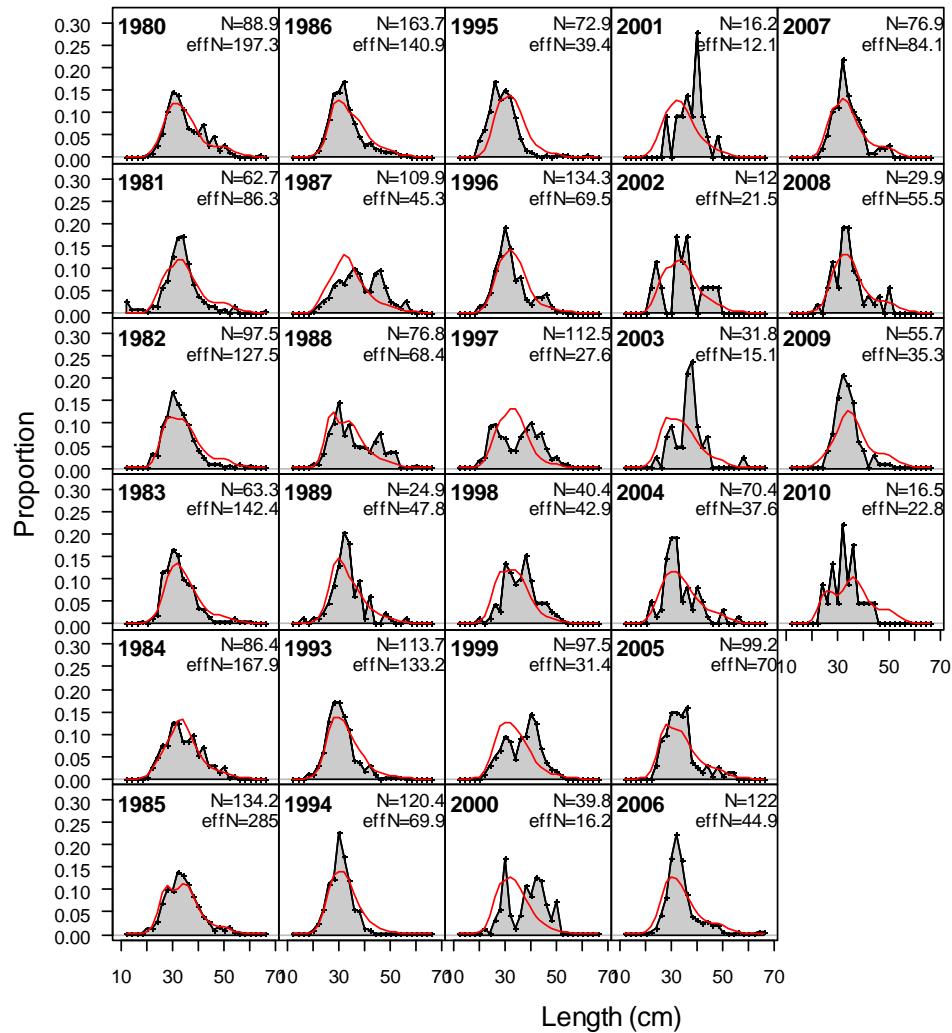


Figure A14. Fit to combined sex length-frequency observations for the northern California recreational fleet.

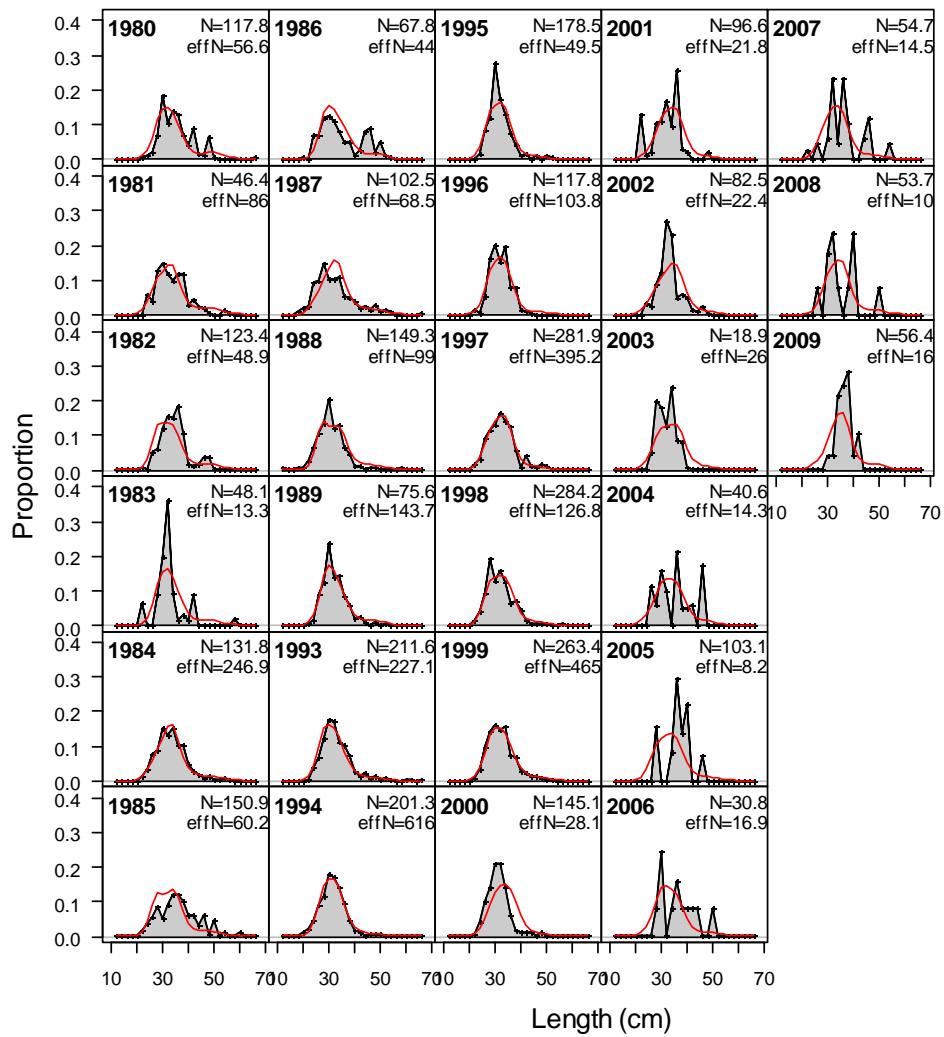


Figure A15. Fit to combined sex length-frequency observations for the Oregon-Washington recreational fleet.

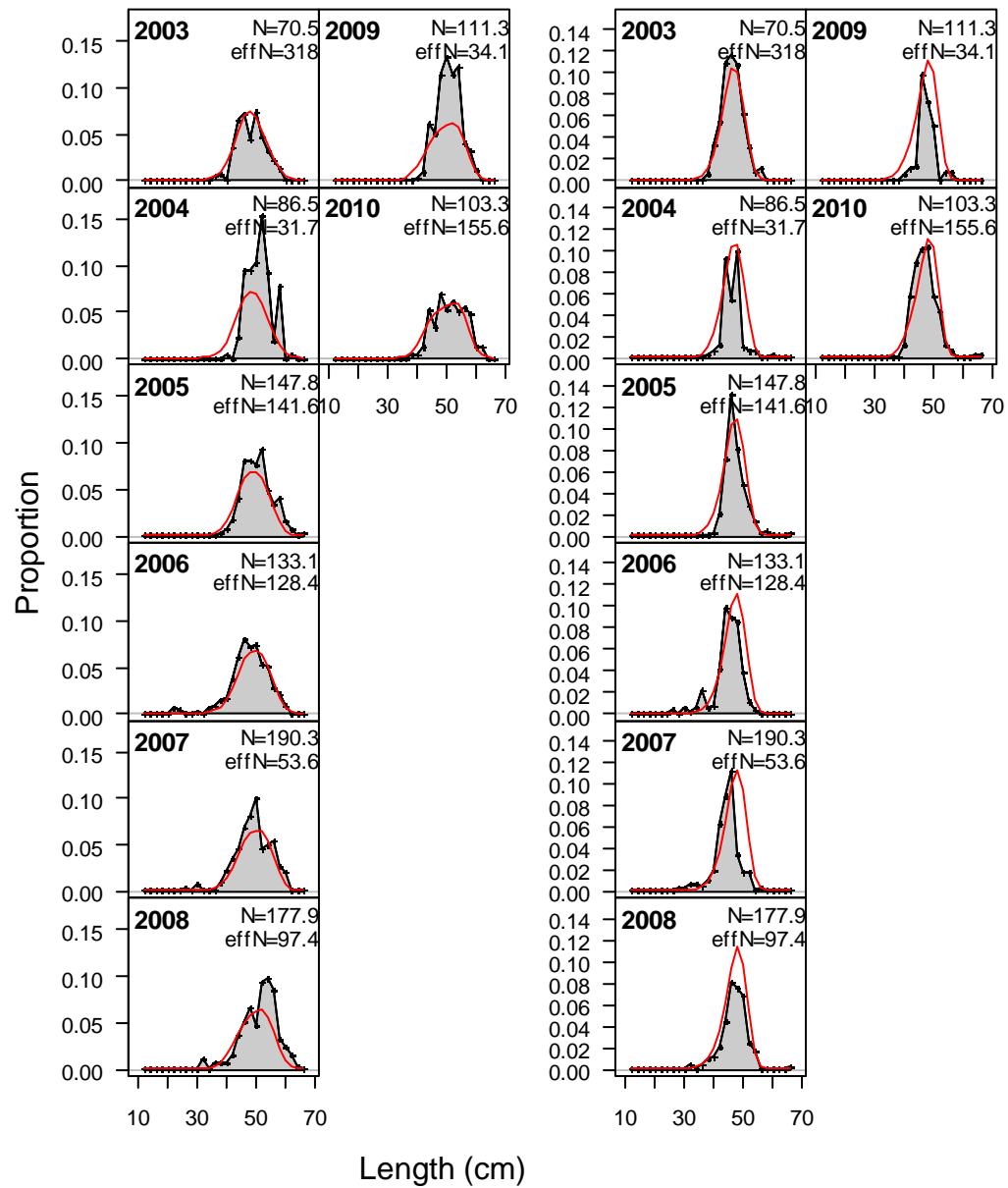


Figure A16. Fit to female (left panels) and male (right panels) length-frequency observations for the at-sea whiting fleet.

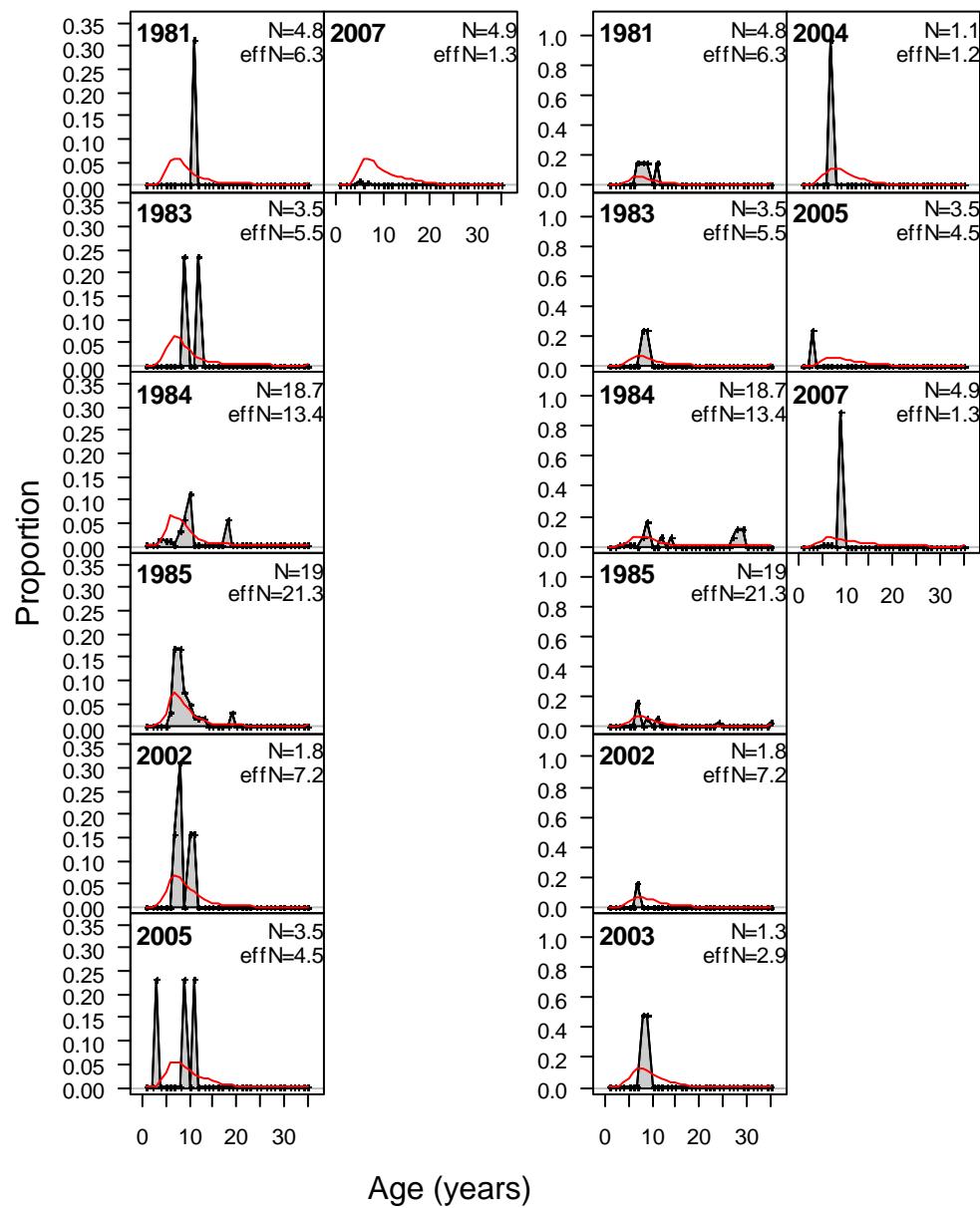


Figure A17. Fit to the southern California fishery female (left panels) and male (right panels) age-frequencies.

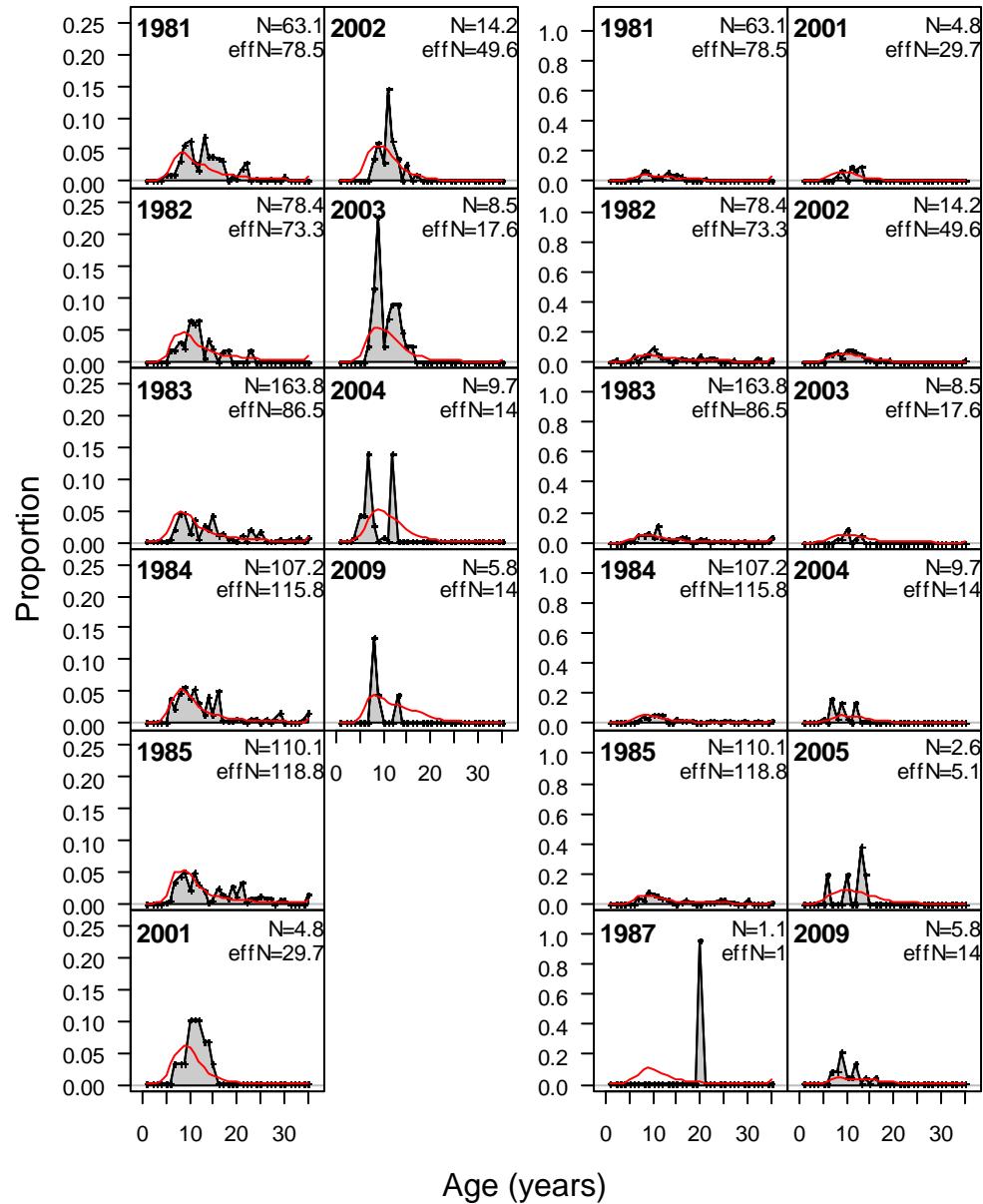


Figure A18. Fit to the northern California trawl fishery female (left panels) and male (right panels) age-frequencies.

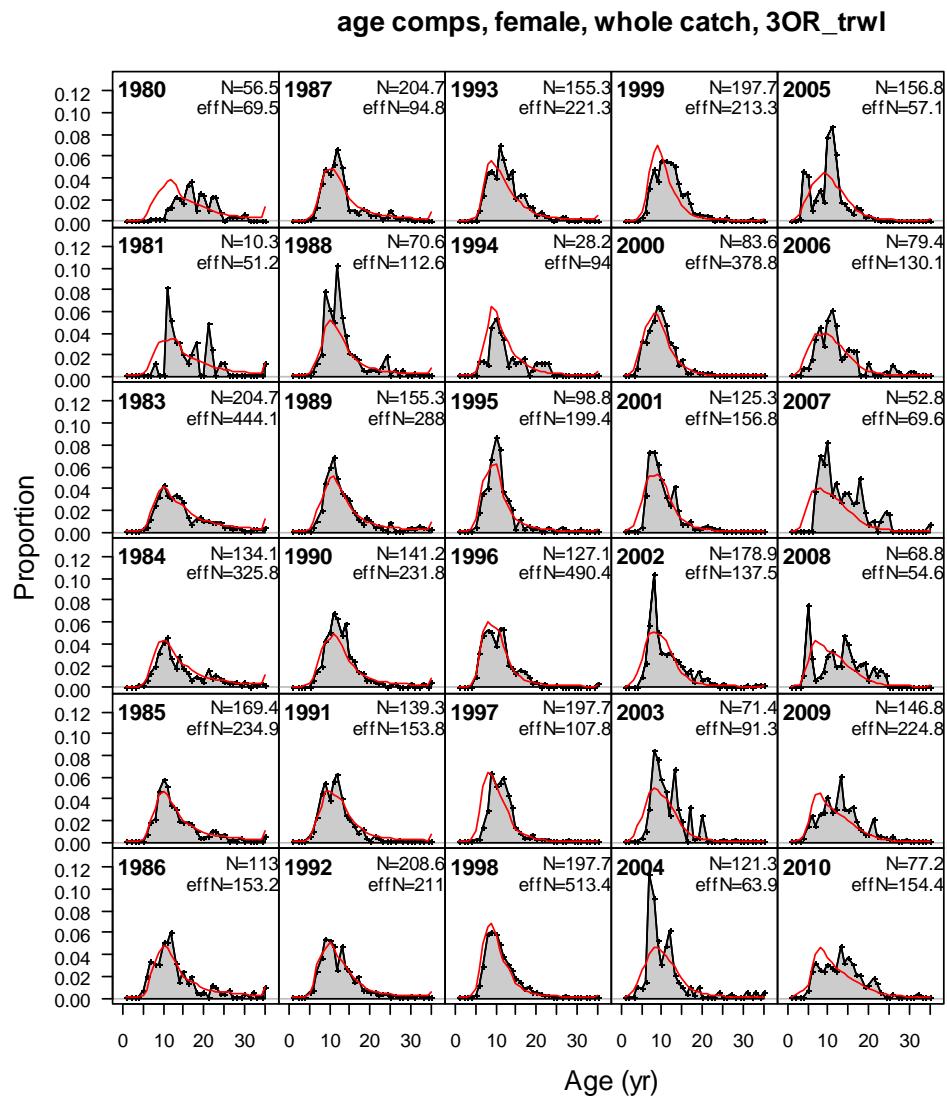


Figure A19. Fit to the Oregon trawl fishery female age-frequencies.

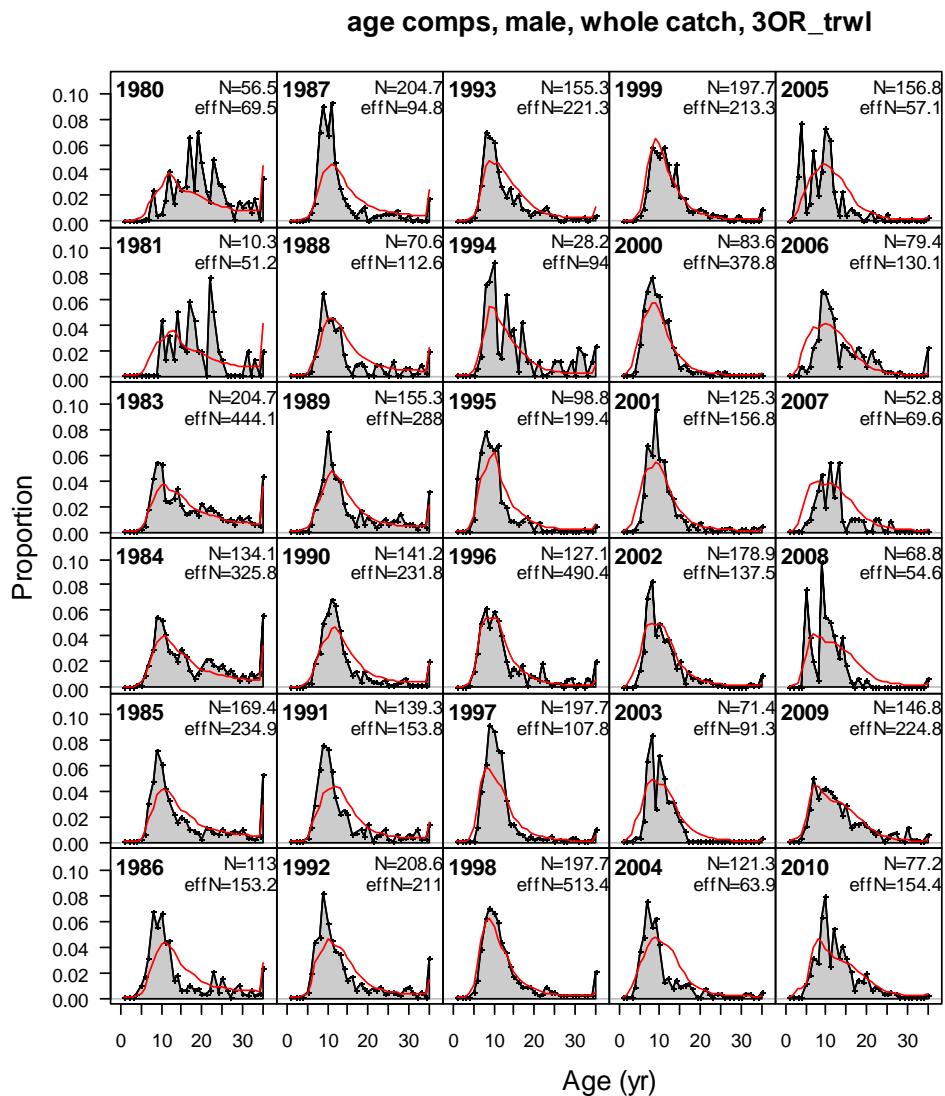


Figure A20. Fit to the Oregon trawl fishery male age-frequencies.

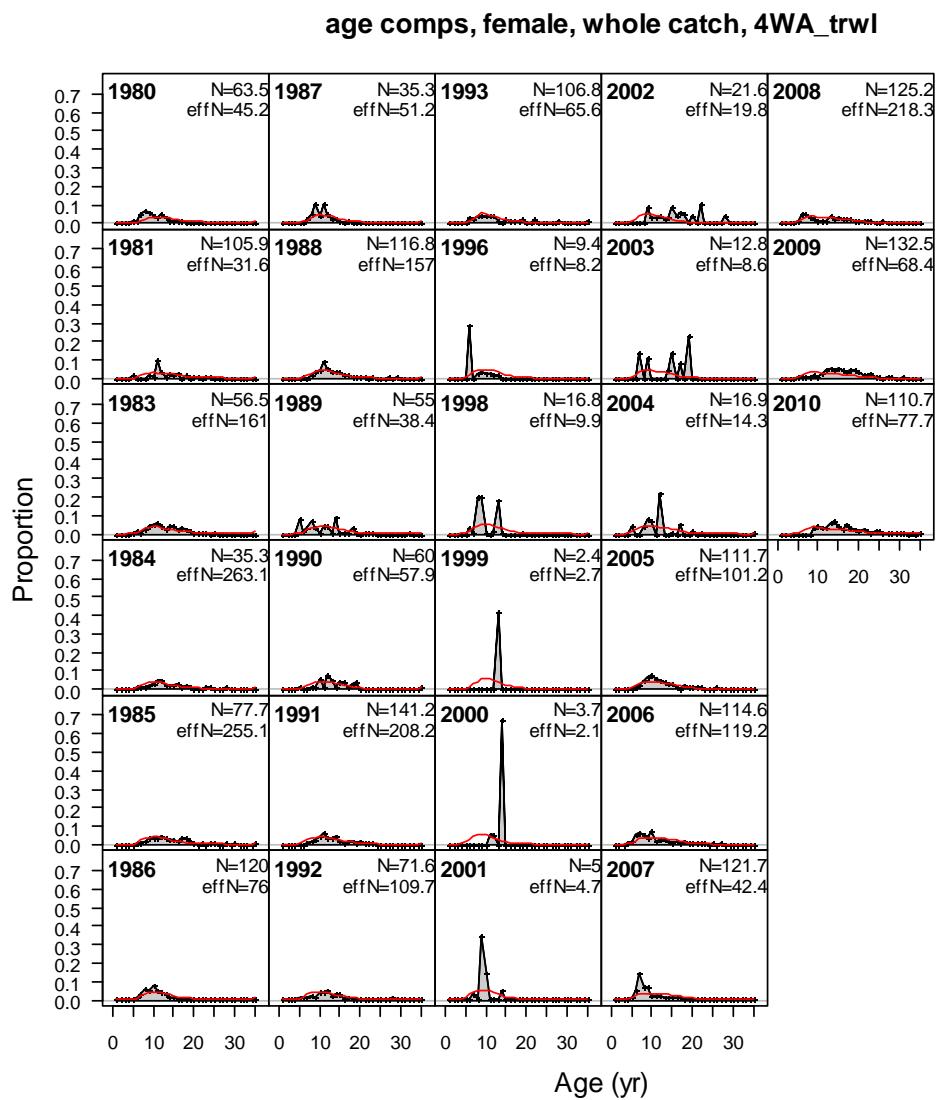


Figure A21. Fit to the Washington trawl fishery female age-frequencies based on WDFW ageing-error.

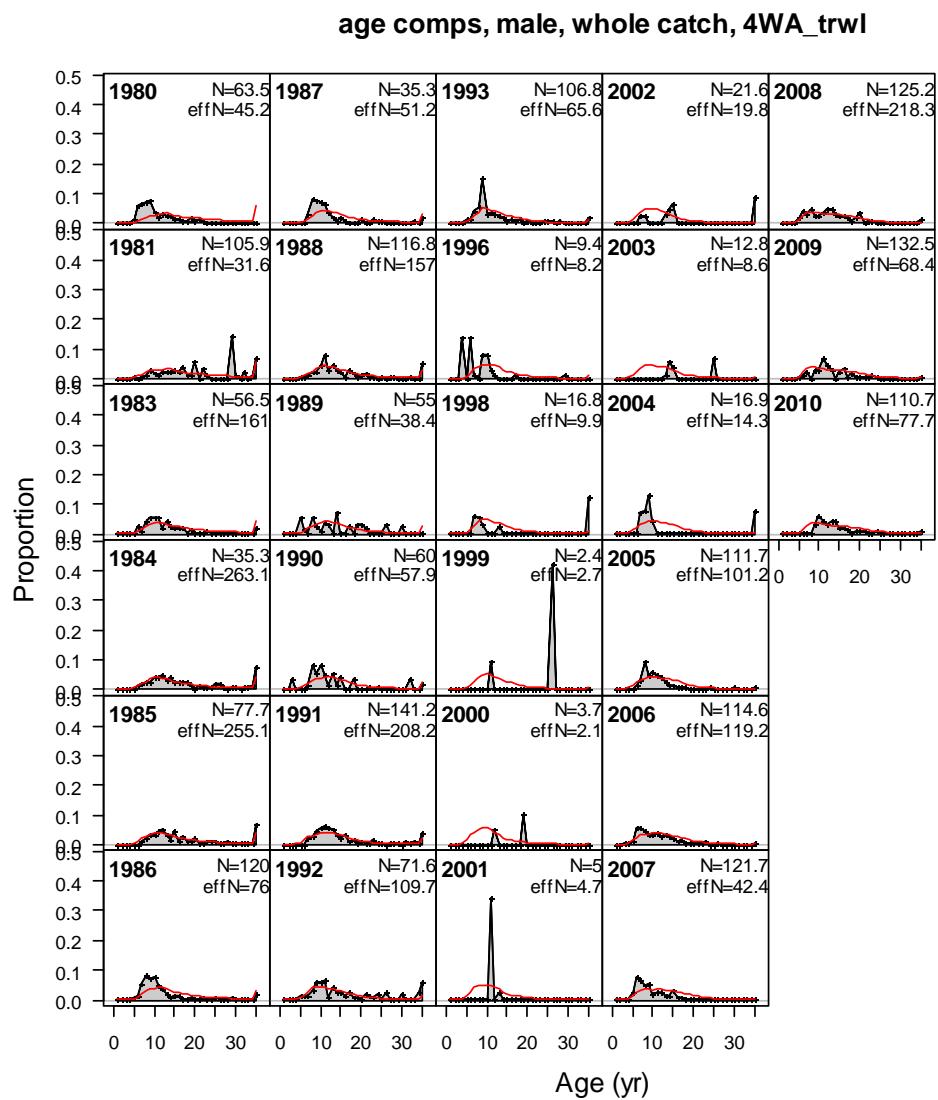


Figure A22. Fit to the Washington trawl fishery male age-frequencies based on WDFW ageing-error.

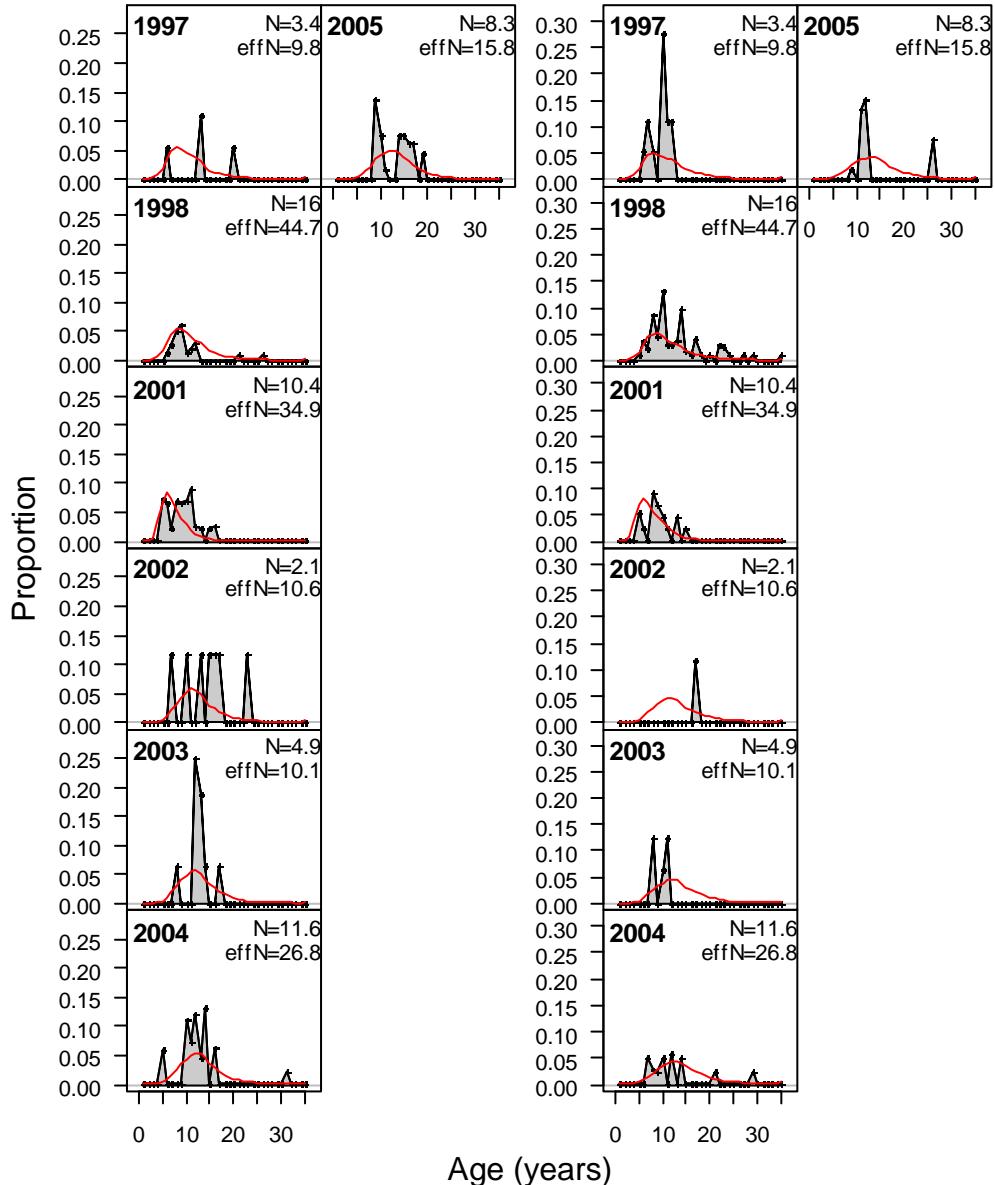


Figure A23. Fit to the Washington-Oregon non-trawl fishery female (left panels) and male (right panels) age-frequencies.

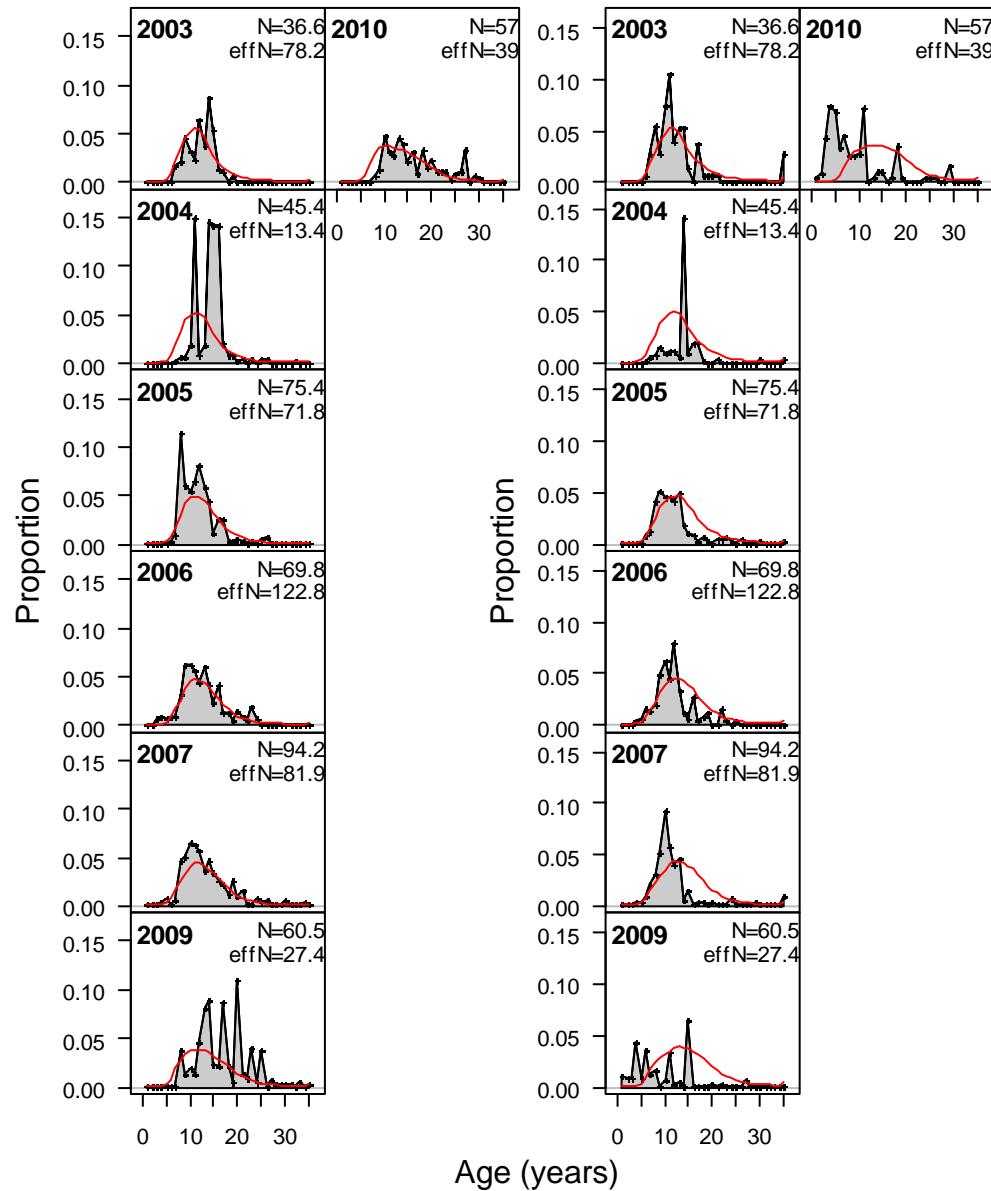


Figure A24. Fit to the at-sea whiting bycatch fishery female (left panels) and male (right panels) age-frequencies.

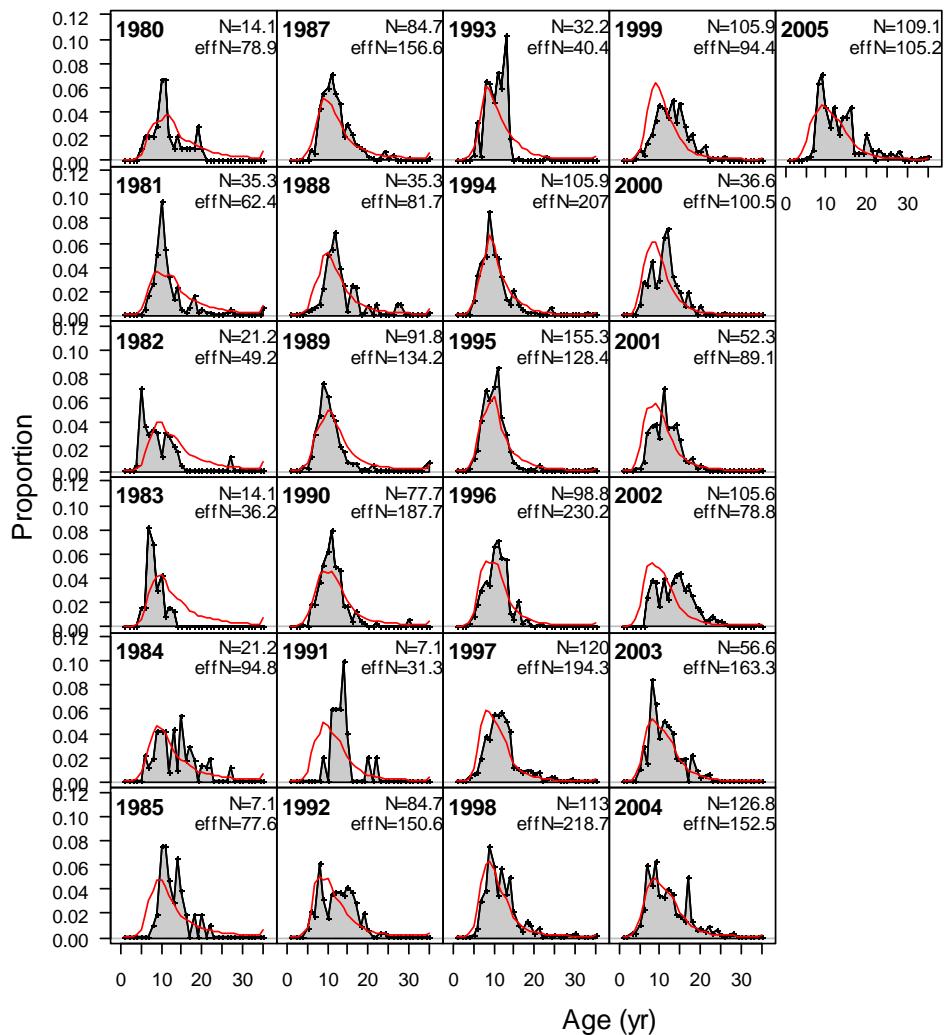


Figure A25. Fit to the Washington trawl fishery female age-frequencies based on CAP ageing-error.

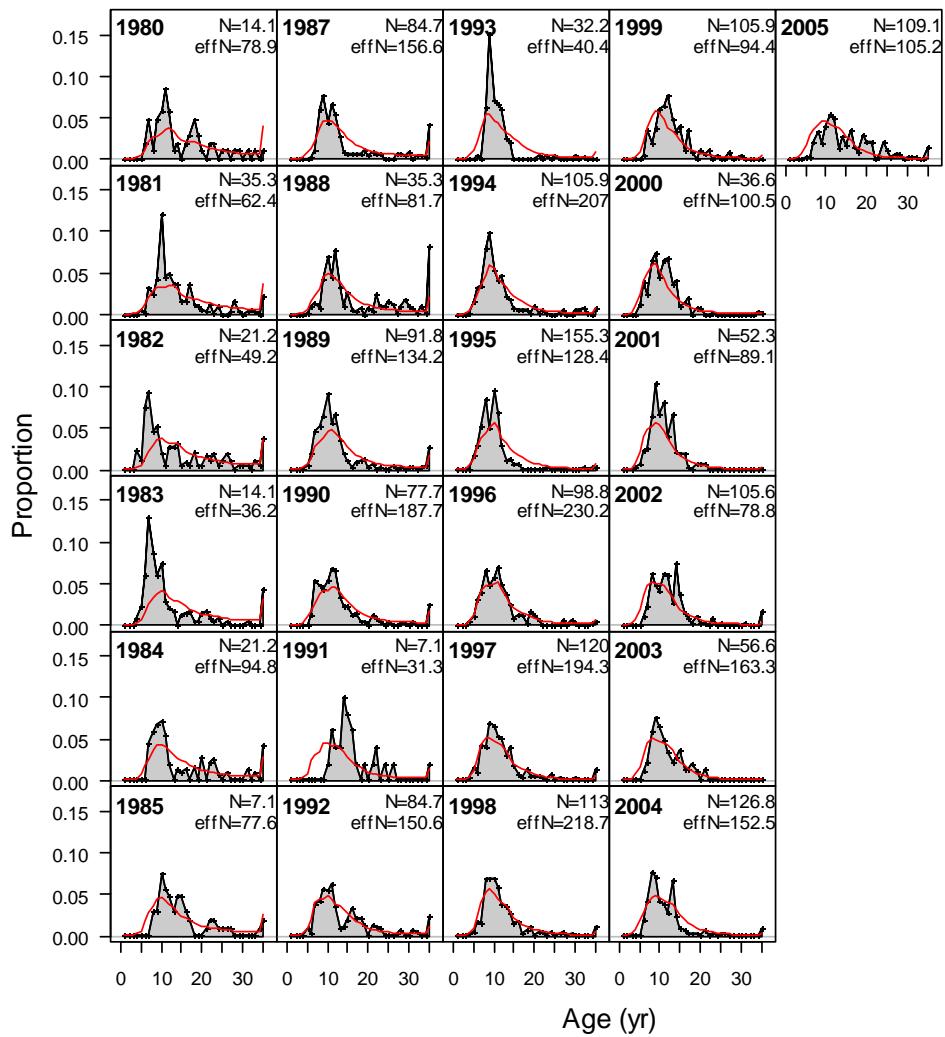


Figure A26. Fit to the Washington trawl fishery male age-frequencies based on CAP ageing-error.

### **13. Appendix B: SS Data file**

```

# Data file for 2011 Canary rockfish updated stock assessment
# updated to run in SSv3.20e
#### Global model specifications ####
1916      # Start year
2010      # End year
1          # Number of seasons/year
12         # Number of months/season (vector, by season)
1          # Spawning occurs at beginning of season
12         # Number of fishing fleets
6          # Number of survey fleets
1          # Number of areas
# Fleet names (separated by "%")
1CA_S_trwl%2CA_N_trwl%3OR_trwl%4WA_trwl%5CA_S_nontrwl%6CA_N_nontrwl%7WAOR_nontrwl%8CA_S_rec%9CA_N_rec%10WAOR_rec%11_atseahake%12_NWFSC%13_Early_tri%14_pre_recruit%15_WAtrl_mirror%16_NWFSC_mirror%17_Late_tri%18_Tri_mirror
# Fleet timing (proportion of season)
0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 # Area of each fleet
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 # Units for catch by fishing fleet: 1=Biomass(mt),2=Numbers(1000s)
0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 # SE of log(catch) by fleet for equilibrium and continuous options
2          # Number of genders (1=combined,2=females and males)
40         # Accumulator age (plus group for population dynamics)

### Catch section ###
# Initial equilibrium catch (landings + discard) by fishing fleet
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
95 # Number of lines catch data
# Catch series - Updated for 2011
# Catch(by fleet) YearSeason
#CA_S CA_N OR WA CA_S CA_N WAOR_ CA_S CA_N WAOR _atsea _NWFSC Year Season
15_WAtrl_mirror 16_NWFSC_mirror 18_Tri_mirror
#_trwl _trwl _trwl _nontrwl nontrwl nontrwl _rec _rec _rec hake
0 10.63 0 0 0 26.31 2.79 0 0 0 0 0 0 0
1916 1
0 16.13 0 0 0 42.72 2.93 0 0 0 0 0 0
1917 1
0 16.4 0 0 0 44.9 3.07 0 0 0 0 0 0
1918 1
0 13.28 0 0 0 25.31 3.22 0 0 0 0 0 0
1919 1
0 13.2 0 0 0 27.56 3.36 0 0 0 0 0 0
1920 1
0 10.01 0 0 0 25.07 3.5 0 0 0 0 0 0
1921 1
0 8.95 0 0 0 23.25 3.65 0 0 0 0 0 0
1922 1
0 11.14 0 0 0 27.49 3.79 0 0 0 0 0 0
1923 1
0 5.89 0 0 0 34.46 3.93 0 0 0 0 0 0
1924 1
0 3.74 0 0 0 43.04 4.08 0 0 0 0 0 0
1925 1
0 12.58 0 0 0 49.92 4.22 0 0 0 0 0 0
1926 1
0 15.54 0 0 0 40.52 4.33 0 0 0 0 0 0
1927 1
0 19.16 8.16 0 0 34.99 7.23 0 0 0 0 0 0
1928 1
0 34.55 14.19 0 0 23.92 12.37 0 1.29 0 0 0 0
1929 1
0 29.84 13.14 0 0 34.09 11.28 0 2.09 0 0 0 0
1930 1
0 41.45 10.06 0 0 33.12 9.06 0 3.14 0 0 0 0
1931 1
0 28.35 0.8 0.04 0 27.4 2.88 0 4.19 0 0 0 0
1932 1

```

0	38.45	0.49	0	0	10.97	4.75	0	5.23	0	0	0
	1933	1									
0	33	0.02	0.3	0	15.27	5.12	0	6.28	0	0	0
	1934	1									
0	33.72	0.39	2.3	0	23.17	4.6	0	7.33	0	0	0
	1935	1									
0	20.21	1.42	2.96	0	20.92	11	0	8.38	0	0	0
	1936	1									
0	30.8	2.78	2.64	0	13.28	13.1	0	9.99	0	0	0
	1937	1									
0	31.36	0	3.9	0	13.62	12.93	0	9.8	0	0	0
	1938	1									
0	41.59	3.95	4.09	0	12.96	7.36	0	8.58	0	0	0
	1939	1									
0	33.96	90.98	9.05	0	9.52	16.31	0	12.18	0	0	0
	1940	1									
0	26.94	140.06	3.39	0	12.32	21.82	0	11.14	0	0	0
	1941	1									
0	6.48	263.08	65.81	0	9.23	30.31	0	12.09	0	0	0
	1942	1									
0	32.1	919.69	212.71	0	7.62	75.02	0	13.04	0	0	0
	1943	1									
0	133.92	1613.87	88.4	0	28.63	19.29	0	13.99	0	0	0
	1944	1									
0	304.19	2490.17	926.43	0	69.7	12.3	0	14.94	0	0	0
	1945	1									
0	275.87	1533.24	467.02	0	71.77	15.11	0	15.89	0	0	0
	1946	1									
0	110.71	955.81	243.97	0	16.42	7.64	0	8.97	0	0	0
	1947	1									
0	114.62	681.06	396.17	0	32.11	12.57	0	18.11	0	0	0
	1948	1									
0	96.72	589.71	481.83	0	12.42	8.38	0	23.42	0	0	0
	1949	1									
0	92.93	617.6	463.03	0	10.06	7.79	0	28.53	0	0	0
	1950	1									
0	199.38	568.18	387.38	0	16.32	5.99	0	31.99	0	0	0
	1951	1									
0	134.15	588.55	369.45	0	12.33	5.71	0	28.55	0	0	0
	1952	1									
0	134.01	616.88	160.2	0	7.17	2.98	0	25.07	0	0	0
	1953	1									
0	90.29	783.29	229.79	0	17.49	3.48	0	33.86	0	0	0
	1954	1									
0	100.28	788.93	216.84	0	4.12	4.31	0	43.75	0	0	0
	1955	1									
0	99.01	1168.75	207.15	0	6.36	2.75	0	49.41	0	0	0
	1956	1									
0	114.58	1217.38	171.37	0	6.88	5.96	0	42.61	0	0	0
	1957	1									
0	147.85	831.98	216.94	0	9.02	1.19	0	65.93	0	0	0
	1958	1									
0	108.66	910.93	242.52	0	6.46	2.45	0	52.38	0	0	0
	1959	1									
0	83.92	1085.39	219.31	0	8.97	1.63	0	41.37	0	0	0
	1960	1									
0	66.84	985.01	260.34	0	6.36	4.52	0	30.22	0	0	0
	1961	1									
0	66.25	1151.08	362.74	0	9.39	4.13	0	36.8	0	0	0
	1962	1									
0	90.9	662.01	292.02	0	8.25	3.7	0	39.79	0	0	0
	1963	1									
0	59.74	1009.03	215.56	0	7.09	8.25	0	38.2	0	0	0
	1964	1									
0	80.37	823.58	480.38	0	8.73	16.79	0	57.6	0	0	0
	1965	1									
0	59.46	923.56	729.91	0	6.57	17.36	0	65.34	0	0	0
	1966	1									
0	81.41	133.16	414.09	0	7.53	31.09	0	70.75	0	0	0
	1967	1									

0	77.62	854.16	671.26	0	4.8	31.89	0	76.65	0	0	0
	1968	1									
2.28	201.51	261.7	558.87	3.2	15.82	45.52	0	82.16	0	0	0
	1969	1									
3.02	215.09	570.03	472.82	3.6	8.4	33.61	0	104.22	0	0	0
	1970	1									
1.67	328.87	759.29	454.59	4.65	16.54	38.23	0	93.06	0	0	0
	1971	1									
3.32	420.27	716.27	163	5.83	35.12	62.93	0	121.34	0	0	0
	1972	1									
5.04	697.64	889.66	146.81	7.87	11.73	66.9	0	141.51	0	0	0
	1973	1									
3.92	551.04	546.11	480.92	9.89	40.22	73.59	0	153.15	0	0	0
	1974	1									
5.06	539.51	388.43	575.07	10.93	25.11	45.08	0	150.16	4.01	0	0
	1975	1									
5.63	524	238.77	454.59	10.83	39.32	52.49	0	156.59	2.11	0	0
	1976	1									
5.13	456.35	595.35	991.19	9.99	49.67	57.1	0	149.55	4.47	0	11.66
	1977	1									
0	655.43	1790.1	1126.86	15.02	131.35	136.81	0	144.37	10.3	0	0
	1978	1									
4.36	311.05	1300.09	1118.76	22.92	106.04	239.32	0	165.42	4.86	0	0
	1979	1									
10.38	433.41	2879.89	945.63	17.21	78.8	183.14	74.36	86.37	34.98	0	5.31
	1980	1									
34.18	494.01	1883.83	514.45	40.14	164.77	160.46	35.05	118.04	48.89	0	0
	1981	1									
0.9	797.71	3635.34	435.11	37.82	10.68	262.09	34.33	241.28	44.47	0	0
	1982	1									
7.39	499.24	3412.49	650.8	47.41	10.04	320.1	11.63	93.99	6.82	0	10.49
	1983	1									
1.8	414.82	1289.2	612.87	32.35	20.88	210.46	31.77	75.66	26.65	0	0
	1984	1									
6.98	316.25	1071.19	1037.98	29.74	82.1	213.19	43.47	120.33	63.37	0	0
	1985	1									
0.81	166.16	1006.99	899.06	12.37	43.98	206.26	61.4	165.45	24.21	0	11.78
	1986	1									
0	209.24	1491.39	1016.63	20.1	23.78	160	57.02	168.13	34.34	0	0
	1987	1									
0.28	223.62	1576.42	979.31	21.64	31.73	0	46.59	137.65	56.59	0	0
	1988	1									
5.13	178.43	1573.63	1208.85	87.48	129.52	0	29.71	85.89	31.56	0	5.1
	1989	1									
0.95	326.72	1029.44	1099.48	39.83	180.05	17.35	10.02	61.34	38.43	0	0
	1990	1									
0.45	148.99	1776.39	971.64	69.21	92.36	27.91	10.02	61.34	43.75	5.06	0
	1991	1									
2.21	223.75	1423.29	825.03	19.24	107.82	152.43	10.02	61.34	38.43	1.81	1.17
	1992	1									
4.91	85.25	1513.8	289.81	14.07	94.22	116.69	0	64.82	51.07	0.72	0
	1993	1									
0.33	126.13	644.15	149.54	13.03	82.8	104.87	0	53.46	38.78	4.83	0
	1994	1									
29.44	109.56	548.61	161.15	35.22	79.31	118.68	1.23	68.33	43.53	0.31	1.07
	1995	1									
11.39	206.97	758.21	189.85	31.4	104.98	166.36	2.49	60.59	25.24	1.35	0
	1996	1									
4.14	170.64	589.85	203.44	8.43	96.29	254.41	1.75	100.85	46.68	3.63	0
	1997	1									
4.05	154.93	716.05	203.02	8.73	71.53	250.13	1.14	25.46	53.49	5.47	0.97
	1998	1									
1.88	102.77	387.85	139.97	2.93	33.84	123.96	2.81	62.05	35.02	5.63	0
	1999	1									
0.17	12.45	38.36	32.7	0.87	7.18	10.25	0.41	76.64	18.46	2.35	0
	2000	1									
0.11	10.76	32.57	19.65	0.48	6.08	11.02	0	33.37	13.34	4.05	1.61
	2001	1									
3.65	16.25	27.71	44.41	0.01	0.23	5.57	0.21	6	11.13	5.24	0.13
	2002	1									

3.14	3.90	13.24	73.81	0.00	0.01	1.17	0.06	18.05	12.1	0.93	1.08
	2003	1									
1.31	1.98	8.30	44.04	0.05	0.02	5.54	1.48	9.11	5.76	5.22	2.24
	2004	1									
2.84	6.26	22.14	10.04	0.03	0.04	1.40	1.49	2	6.82	1.44	4.54
	2005	1									
1.99	4.55	15.97	5.66	0.11	0.00	0.81	5.73	12.3	3.98	1.09	7.78
	2006	1									
8.24	3.41	10.77	4.21	0.00	0.00	0.33	3.47	7.44	3.78	2.00	2.5
	2007	1									
1.21	2.83	10.72	3.69	0.01	0.00	4.26	2.20	4.80	3.28	5.96	2.9
	2008	1									
0.65	1.61	7.24	4.75	0.00	0.01	3.45	3.55	7.65	3.50	5.05	0.5
	2009	1									
0.92	2.20	8.89	8.78	0.02	0.01	10.17	7.23	15.67	20.90	5.22	1.82
	2010	1									

### Abundance indices ###

# Total number of observations (all fleets) (#\_N\_cpue)

#\_Units: 0=numbers; 1=biomass; 2=F

#\_Errtype: -1=normal; 0=lognormal; >0=T

#_Fleet	Units	Errtype	
1	1	0	# 1CA_S_trwl
2	1	0	# 2CA_N_trwl
3	1	0	# 3OR_trwl
4	1	0	# 4WA_trwl
5	1	0	# 5CA_S_nontrwl
6	1	0	# 6CA_N_nontrwl
7	1	0	# 7WAOR_nontrwl
8	1	0	# 8CA_S_rec
9	1	0	# 9CA_N_rec
10	1	0	# 10WAOR_rec
11	1	0	# 11_atseahake
12	1	0	# 12_NWFSC
13	1	0	# 13_Early_tri
14	0	0	# 14_pre_recruit
15	1	0	# 15_WAtrl_mirror
16	1	0	# 16_NWFSC_mirror
17	1	0	# 17_Late_tri
18	1	0	# 18_Tri_mirror

# Year Seas Type Value s(log space)

# 2009 NWFSC survey - GLMM based with gamma error (n=8) - Updated 20 Apr 2011

# \_NWFSC

2003	1	12	5642.23	0.206
2004	1	12	10512.53	0.245
2005	1	12	11246.51	0.214
2006	1	12	32382.00	0.328
2007	1	12	10271.06	0.235
2008	1	12	19534.86	0.352
2009	1	12	4389.24	0.336
2010	1	12	7227.09	0.237

# Early Triennial survey - GLMM based (n=5) - Updated 21 Apr 2011

# \_Early\_tri

1980	1	13	3409.84	0.158
1983	1	13	10713.95	0.134
1986	1	13	7272.73	0.102
1989	1	13	4638.18	0.133
1992	1	13	861.22	0.168

# Late Triennial survey - GLMM based (n=4) - Updated 21 Apr 2011

# \_Late\_tri

1995	1	17	1947.78	0.285
1998	1	17	1074.56	0.254
2001	1	17	1635.44	0.170
2004	1	17	1774.41	0.196

# Pre-recruit index Revised for 2009 (n=9)

# Mean input SE = 0.047 (was 6.64x greater in 2007) + 0.375 adjustment - Updated 21 Apr 2011

# \_pre\_recruit

Year	Seas	Type	Gender	Partition	Nsamp	Data: females then males
2001	1	14	2.38	0.054		
2002	1	14	5.71	0.053		
2003	1	14	1.92	0.044		
2004	1	14	4.96	0.046		
2005	1	14	2.49	0.038		
2006	1	14	1.51	0.035		
2007	1	14	1.71	0.038		
2008	1	14	2.06	0.039		
2009	1	14	1.82	0.038		

```

### Discard section ####
# Discard observation setup
0 # N_fleets_with_discard
0 # Total number of discard observations all fleets and years

# Mean body weight observations
0 # Total number of mean body weight observations
30 #_DF_meanwt

## Population size structure
3 # Length bin method: 1=Use data bins,2=generate from min/max/width read below, 3=Read count and vector below
30 # Count of population bins
# Lower edge of bins
8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66

-1 # Minimum proportion for compressing tails of observed compositional data
0.001 # Constant added to expected frequencies
0 # Combine males and females at and below this bin number

28 # Number of length bins

```

# Lower edge of length bins by bin

12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66

```

### length composition data ####
312 # Total number of length observations all fleets and years
# Gender: 0=sexes combined into length bins, 1=females only (0s male bins), 2=males only (0s for female bins), 3=both males and
females, total should sum to 1.0
# Year Seas Type Gender Partition Nsamp Data: females then males
# 2011 Southern California trawl fleet (n=30)
1978 1 1 0 0 9.21 0 0 0 0 0 0
0 0 0 0 0 36.75325 0 67.19697 103.95022 0 21.73913
208.18626 61.38711 451.37755 0 21.73913 21.73913 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0
1979 1 1 0 0 2.28 0 0 0 0 0 0
0 0 0 0 0 51.6129 0 0 0 0 354.32692
0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0
1980 1 1 0 0 14.45 0 0 0 0 0 0
0 0 0 0 121.76471 669.15126 506.66666 716.5967 768.92033 430.43613 510.92888
285.94 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0
1981 1 1 0 0 9.38 0 0 0 0 0 0
0 0 0 0 0 0 0 271.7884615 879.5896885
493.7285367 0 374.5306122 0 0 0 0 0 0 0 0

```

		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
1982	1	1	0	0	4.69	0	0	0	0	0	0
	0	0	0	0	0	0	54.6	257.6422018	0	0	500
	228.8	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1983	1	1	0	0	8.66	0	0	0	0	0	0
	0	0	0	0	0	37.0408163	0	0	115.4166667	0	0
	212.0171166	309.7270766		192.0171166		238.8372093	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1984	1	1	0	0	18.83	0	0	0	0	0	0
	0	29.877551	59.755102	119.510204		109.5510204	93.5941915		24.4749711	0	0
	603.1632653	324.2826087		137.0093458		810.6796117	702.5882353	0	0	0	0
	824.2826087	1658.048033		500	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1985	1	1	0	0	32.73	171.3207547	0	0	0	0	0
	0	0	0	0	119.9185635	90.0094961	527.6007593	0	0	0	0
	787.6976493	795.7559878		515.3457244		664.0846327	102.4770777	0	0	0	0
	111.295098	0	154.3269231		77.1634615	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1986	1	1	0	0	3.55	0	0	0	0	0	0
	0	0	0	0	12.9591837	0	105.3	0	0	12.9591837	0
	183.3	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1988	1	1	0	0	3.41	0	0	0	0	0	0
	0	81.81	0	0	0	0	71.9958879	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	1	0	0	5.07	0	0	0	0	0	0
	0	0	0	0	21.4615384	0	53.6538462	36.9038462	0	0	0
	532.1923077	0	0	0	0	10.7307692	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1990	1	1	0	0	8.90	0	0	0	0	0	0
	0	0	222.7990654		7.5	3.75	11.86	171.36125	9.55	0	3.75
	8.11	17.9313725	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1991	1	1	0	0	8.76	0	0	0	0	0	0
	0	0	0	0.7088608	83.0546762		63.4044164	414.9436735	0	0	0
	85.4511112	45.5111111		0.7088608	0	62.6955556	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1992	1	1	0	0	14.93	0	0	0	0	0	0
	0	0	0	0	49.7728571		99.9788093	93.5015247	0	0	0
	85.1026188	102.1530612		48.4931973		70.1564626	4.4859813	5.1666667	0	0	0
	5.1666667	10.8703704	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

1993	1	1	0	0	49.98	0	0	0	0	0	0
	0	15.6185158		59.5259383		253.1475428		229.9486807		368.4702333	
	371.8077533		1050.393493		253.6125338		370.1500121		64.4630154		
	84.8043099		17.8424547		81.4494418		49.3918036		15.6442308		3.2178218
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1994	1	1	0	0	14.83	0	0	0	0	0	0
	0	0	0	0	0	40.286247	9.9955207	148.3938414		117.2055354	
	94.3406186		91.555442	50.2483862		36.6737708		12.0103093		45.8963124	
	12.0103093		16.9430016		0	0	0	12.0103093		0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1995	1	1	0	0	13.28	0	0	0	0	0	0
	0	0	0	30.48	196.9303226		63.7545833		53.5945833		12.16
	27.1145833		183.3514493		116.0076993		71.7785326		78.2133152		
	49.6639493		22.1145833		22.1145833		10.16	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1996	1	1	0	0	42.91	0	0	0	0	0	0
	0	2.5714286	58.7589286		53.643617	137.0168259		131.3431123		178.4191272	
	278.562743		600.0516522		269.2882356		253.1958774		59.0065554		
	85.5728155		99.9766617		85.5728155		42.7864078		0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1997	1	1	0	0	48.98	0	0	0	0	0	0
	0	0	3.0851064	7.0851064	23.228554	85.3796648		125.6838593		183.3232179	
	436.7562792		574.8167819		439.4557894		483.3556633		208.3741298		
	210.5980128		29.19	58.38	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1998	1	1	0	0	23.73	0	0	0	0	0	0
	0	0	0	60.7042553		240.0974468		236.3539362		242.1889361	
	135.5595745		61.1304492		11.2348936		37.0948936	0	4.6	8.4148936	
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1999	1	1	0	0	11.90	0	0	0	0	0	0
	0	0	0	0	0	30.9288889		31.3177778		95.8288889	
	36.8577778		61.6288889		28.8777778		11.08	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2000	1	1	0	0	8.73	0	0	0	0	0	0
	0	0	0	0	0	7.5	11.9444444	15	12.5	7.5	
	20.0979097		1	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	1	0	0	20.45	0	0	0	0	0	0
	0	0	0	7.6905747	7.0411494	32.1920487		20.3857471		12.6034483	
	6.9730237	6.2495109	3.9730237	1	4.9730237	0	1	3.622449	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2002	1	1	0	0	4.38	0	0	0	0	0	0
	0	0	0	0	131.6391403		198.6389128		1154.493783		
	644.0763238		0	0	0	0	0	0	0	0	
	356.1529412		0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	1	0	0	9.35	0	0	0	0	0	0
	0	0	0	0	0	0	0	163449.7335		129029.852	

	576.0656194	0	0	0	0	1152.131239	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2004	1	1	0	0	5.97	0	0	0	0
	0	0	0	0	0	0	0	91315.93754	
	208407.8193	30791.86924	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2005	1	1	0	0	9.21	0	0	0	306.4778756
	0	306.4778756	0	0	0	0	0	0	0
	0	22853.13644	22674.41594	21793.61308	51241.32868	12830.73644			
	51088.53278	45961.49835	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2006	1	1	0	0	22.9	0	0	0	0
	18.29336184	6.09778728	6.09778728	12.19557456	485.2414092				
	8066.132744	5272.142128	6.09778728	148.7860096	12.19557456				
	6.09778728	42.68451096	24.39114912	6.09778728	0	6.09778728			
	6.09778728	22264.73561	20756.52312	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2007	1	1	0	0	24.49	0	0	1.57531612	0
	0	0	0	0	17.64354054	164.1479397	264.6531082		
	1386.597122	3351.782971	5260.45152	4751.186848	5474.573459				
	5958.693936	5963.374047	7782.686444	3914.912983	1229.714979				
	5.827868683	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2008	1	1	0	0	9.76	0	0	0	0
	0	0	0	0	59.67462814	35.41008428	355.6703756		
	1044.098815	1584.385535	913.708632	1313.879906	554.4605099	0			
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2009	1	1	0	0	10.14	0	0	0	0
	0	0	0	0	0	442.3030523	51.87446275	1237.235553	
	3790.086489	0	0	0	0	2424.200439	5034.53736	2960.104484	
	2516.703201	1506.897421	643.2492735	135.8764528	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
2010	1	1	0	0	4.104	0	0	0	0
	0	0	0	0	0	0	0	2200.004668	
	2727.001576	664.3805362	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
# 2007 Northern California trawl fleet (n=28)									
1978	1	2	3	0	113.09	0	0	0	0
	0	0	0	0	0	118.620576	640.855595	0	
	37.87037	172.292127	816.027507	1487.747031	2096.798161	3191.75492			
	1603.777512	2335.164309	932.833843	756.792783	82.006941	53.48563	0		
	0	0	0	0	0	0	0	6.7	
	0	0	280.532271	159.785714	142.948124	493.097262			
	2354.266288	1684.743894	7371.176821	2611.463314	1502.707674				
	528.929746	1582.674231	469.962406	0	0	0			
1979	1	2	3	0	53.18	0	0	0	0
	0	0	0	0	0	0	31.37931	31.37931	114.583333
	31.37931	281.930233	1.865385	380.830711	454.21914	181.704828	912.439928		
	441.447048	10.223279	96.257377	4.178947	23.751938	0	0	0	0
	0	0	0	0	0	0	239.010207		
	268.647158	652.729227	501.387821	729.824654	1183.067607				
	1351.687493	1302.679503	1476.261677	54.505555	89.7	0	0	0	
	280.733333								

1980	1	2	3	0	116.02	0	0	0	0	0	0
	0	0	0	0	0	67.963434	131.315789	587.133664	88.713516		
	288.939401		368.491804		685.828172		1171.152206	809.393528			
	667.799892		800.639099		495.422916		304.898459	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	138.240703		375.199351		203.075686		879.121821	620.87789		
	2227.287931		2024.224985		2501.730777		1888.276231	593.223662	0		
1981	233.910714		0	0	0	0	0				
	1	2	3	0	74.29	0	0	0	0	0	0
	0	0	0	124.75	0	124.75	53.4448244	8.1489362	255.4818868		
	1234.751363		518.8917677		1280.517625		1410.581854	919.6851325			
	770.2782992		1116.949268		1567.728721		350.1341303	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	93.0024225		759.482274		794.3314014	1180.161028			
	1033.105838		2523.177679		1033.681141		912.8045213	128.3242762	0		
	0	0	0	0	0	0					
1982	1	2	3	0	120.16	0	0	0	0	0	0
	0	0	0	0	88.4693878		32.8371428	1007.440033			
	323.488755		176.7080594		2458.002137		1772.1635	1246.304479	3264.786854		
	1813.534221		683.7733475		1058.516111		263.7513975	10.8461538	4.2884615		
	0	0	0	0	0	0	0	0	0	0	0
	0	0	303.2238449		818.0348666		1167.88308	1113.406082			
	1606.889284		2910.729196		3384.928817		2145.195514	2343.928141			
	4794.319474		1312.38659		4.2884615	0	0	0	0	0	0
1983	1	2	3	0	174.44	0	0	0	0	0	0
	0	0	0	53.6363636		291.6075229	77.6906558	441.218364			
	538.544462		2402.817271		1221.64721		973.0557754	2650.612503			
	1256.343337		1705.737494		3263.409513		1726.524794	1231.428868			
	464.482247		0	0	0	0	0	0	0	0	0
	0	0	0	0	0	145.1014394	182.2048485	1202.329627			
	2517.8163	1167.65492		3270.181734		2635.771907	3990.073468	6261.49987			
	2948.148886		2004.594796		361.1772969		54.0395349	206.961165	0		
	0	0	0								
1984	1	2	3	0	116.06	0	0	0	0	0	0
	0	0	6.6438356	0	47.634434	749.7551379		1402.351341	315.1686367		
	1483.620261		1688.484195		1307.060526		1880.950895	1684.637748			
	1396.472342		1584.174496		656.5174063		1398.353281	893.0375056	10.9		
	0	0	0	0	0	0	0	0	0	0	0
	0	13.2876712		63.0530261		97.9116912	433.7604463	796.8425966			
	1270.532623		1522.899657		1935.217138		3576.827901	2702.52329			
	1339.322596		1371.599481		340.3931452		356.1529412	0	0	0	0
	0	0	0	0	0						
1985	1	2	3	0	122.96	0	0	0	0	0	0
	0	0	0	0	131.6391403		205.236851	1174.287597			
	1379.988011		1489.251662		2077.991069		1318.103597	1006.907644			
	959.1333095		2290.333141		569.7772609		2268.699416	3271.737375			
	1128.889796		0	0	0	0	0	0	0	0	0
	0	0	0	0	24.7327273		451.5098311	292.9054633			
	658.188647		1564.19122		2381.488066		2210.192169	2546.026142			
	2715.40301		2788.996369		3620.307485		1820.516493	583.6080116	2.7111111		
	0	0	0	0	0						
1986	1	2	3	0	106.68	0	0	0	0	0	0
	0	0	0	45.7142857	0		27.1262136	272.4644907			
	799.8412897		1213.732792		699.954717		1006.509521	1038.55708			
	1274.744999		749.7632428		637.2293199		381.5464686	162.8707338			
	34.4039216		0	0	0	0	0	0	0	0	0
	0	0	0	45.7142857	0		8.5882353	13.1346154	313.2680762		
	959.9147094		2200.004668		2727.001576		1335.099892	2259.124011			
	1221.029807		487.6268166		139.2749821		29.2079208	0	0	0	0
	0	0	0								
1987	1	2	3	0	103.23	0	0	0	0	0	0
	0	0	0	0	1078.018227		1268.571344	1506.259631			
	606.7591491		1277.376256		2535.875084		1104.191711	1834.800406			
	1257.061249		175.6027272		429.1086868		192.239724	184.5454545			
	148.9393939		0	0	0	0	0	0	0	0	0
	0	0	88.2040816		0	363.5950495	1806.253371	1735.420442			
	1914.220942		971.7152224		2642.324304		2682.562774	1416.198514			
	1010.69907		771.3737156		49.2353952		0	0	0	0	0
	0	0									

1988	1	2	3	0	86.12	0	0	0	0	0	0
	0	0	0	218.4825371		205.7661583		497.7446001		516.6489736	
	1310.129926		1303.178279		1009.176446		475.697781		538.3533831		
	841.1609838		288.9236938		954.0637786		124.5436938		75.95	0	3.6
	0	0	0	0	0	0	0	0	0	0	0
	0	99.5876289		254.6893213		263.4307196		908.9894449		1770.909898	
	1654.45194		1787.748824		1665.893625		958.8669768		1287.201241		
	777.6895077		120.0891089		0	0	0	0	0	0	0
1989	1	2	3	0	74.02	0	0	0	0	0	0
	0	0	0	48.1568627		142.5841176		313.0685106		881.2309814	
	538.9568289		1831.72314		946.6937907		342.2584096		251.5827463		417.69
	617.8785149		610.7258886		380.9460606		262.9985149		97.6060606		0
	0	0	0	0	0	0	0	0	0	0	0
	0	57.5	988.6802263		1089.307809		1150.039032		1489.473443		
	1961.042627		1203.075266		845.1249546		2063.035095		1054.603658		
	483.9469997		82.4373738		0	21.8686869		0	0	0	0
	0										
1990	1	2	3	0	86.75	0	0	0	0	0	0
	0	0	0	0	95.46	587.393573		614.022586		828.204582	
	1464.47111		2419.169212		960.1408962		699.9427342		1481.635347		
	2505.191785		1910.185249		618.1985544		101.9702971		26.8834951		
	330.340484		0	0	0	0	0	0	0	0	0
	0	0	0	0	105.5843434		791.8729063		1402.144381		
	2518.281471		1210.52657		3112.644551		3081.663932		3096.058823		
	2732.753312		1367.064497		0	46.3366337		0	0	0	0
	0	0									
1991	1	2	3	0	52.46	0	0	0	0	0	0
	0	0	0	0	50.73	369.5609804		588.0744457		869.8504854	
	1089.170336		670.5044593		569.519125		387.5290365		417.6859088		
	175.5224345		202.2009804		302.1280877		0	0	0	0	0
	0	0	0	0	0	0	0	0	21.79	50.73	
	424.9880392		186.5823077		937.7912774		1088.95382		933.3932039		
	800.9637274		1592.862786		603.0278269		343.2073364		21.49	0	
	25.3431373		25.3431373		0	0	0	0			
1992	1	2	3	0	45.67	0	0	0	0	0	0
	0	0	0	0	17.37	264.79	369.25	928.76	656.9	591.15	1660.83
	544.2716832		1093.5	368.34	167.27	253.45	0	74.95	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	95.32	430.5412621		961.67	1155.453316		1402.64	1482.16	1419.53	1462.87	788.88
	367.96	961.35	0	0	0	0	0	0			
1993	1	2	3	0	18.80	0	0	0	0	0	0
	0	0	0	0	0	0	217.36	0	189.0016667		25.8
	414.4983673		12.9	292.9183674		66.1	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	108.68	0	555.4454545		0	240.7916667		384.35	548.9983673		194.14
	802.8467346		419.4638219		0	0	0	0	0	0	0
	0	0	0								
1994	1	2	3	0	22.01	0	0	0	0	0	0
	0	0	0	0	128.24	64.12	408.7536634		64.12	584.8036634	
	726.0320326		1823.865376		314.246092		21.5	363.0160163		344.6336634	
	16.25	21.08	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	368.6836634		128.24	0	
	929.4373267		1842.435376		528.9974024		1055.40099		435.0097554		
	71.0084449		15.8613861		0	0	0	0	0	0	0
	0										
1995	1	2	3	0	40.39	0	0	0	0	0	0
	0	0	0	7.5940594	69.4740594		109.3568276		221.0267124		
	242.2950414		210.8799839		132.8174257		126.64059	139.0845464		117.3491089	
	35.0716832		57.1665306		8.8316832	8.8316832	0	0	0	0	0
	0	0	0	0	0	0	0	0	30.94		
	121.3165804		130.3287088		404.4361722		292.7457264		297.6579996		
	282.1150414		192.9302889		150.2449464		62.1057426		39.63	34.18	0
	0	0	0	0	0	0					
1996	1	2	3	0	42.08	0	0	0	0	0	0
	0	0	0	14.5098039		8.9432943	40.7151125		458.6494869		
	692.3374081		156.2938614		123.6075065		222.3702174		178.9734653		314.7
	294.7634653		104.55	0	209.1	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	188.4280303		
	64.9654545		453.0789762		967.8485779		506.204717		396.9058595		

		531.189829	539.4227272	94.36	106.1863636	209.1	104.55	0	0
1997	0	0	0	0	0	0	0	0	0
	1	2	3	0	23.01	0	0	0	0
	0	0	0	137.7021277	4.32	140.0621277		23.4774257	
	141.2421277	48.7380838	45.1980838		185.8617381		63.4071227		
	231.7656285	56.0955096	1.18	123.6346154	0	0	13.2574257	0	
	0	123.6346154	123.6346154	0	0	0	0	0	0
	0	0	0	0	3.54	35.4806581		177.7985058	
	100.0677807	212.3765896	91.9587821		29.5806581		387.2270785		
	13.2574257	166.4726992	0	0	0	0	0	0	0
1998	1	2	3	0	19.25	0	0	0	0
	0	0	0	0	3.32	13.7	58.5848936	80.2027451	13.7
	10.17	186.4382353	143.3854902		259.7909804		186.2282353	63.1827451	
	123.0454902	0	3.32	0	0	0	0	0	0
	0	0	0	0	0	0	10.17	44.42	
	161.4438144	30.51	161.8617528		269.7509804		10.17	63.1827451	6.85
	59.8627451	0	0	0	0	0	0	0	
1999	1	2	3	0	44.19	0	0	0	0
	0	0	55.4455446	0	0	44.8796703		113.6955446	
	228.2996703	823.4934991	717.881124		923.302707		368.7658416		
	580.8982842	155.0258089	86.1755446		41.3296703		0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	169.8866337	441.7534991		436.3076575		799.9000348
	754.0714536	708.8616505	302.0421782		105.5888782		19.2430693	0	
2000	0	0	0	0	0	0	0	0	0
	1	2	3	0	13.14	0	0	0	0
	0	0	0	0	0	0	6.490909	6.3363636	8.6472727
	4.3054545	9.1258505	0	0	3.2454545	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	3.2454545	6.4909091	14.2181818	12.1872727		6.3363636	1.7	0
	0	0	0	0	0	0	0	0	
2001	1	2	3	0	21.77	0	0	0	0
	0	0	0	0	0	0.8148148	4.471243	17.3156253	
	19.8741457	21.8619864	26.492062	23.0518864		13.1845185		9.3810445	0.8148148
	0	0.8148148	0	0	0	0	0	0	0
	0	0	0	0	0	0	5.7446809	8.0647124	16.849699
	30.3116208	29.0723276	4.2781818	0	0	0	0	0	23.48374
	0	0	0						
2002	1	2	3	0	55.57	0	0	0	0
	0	0	0	0	0	0	44.17027974		120.4298313
	150.7405713	505.216765	470.7995681		283.4321811		322.6398192		
	44.17027974	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	16.19148896
	12.4549915	124.569427	491.5980601		873.9867017		699.2338857		
	538.0616201	48.23196083	58.7858299		17.157386	0	0	0	
	0	0	0						
2003	1	2	3	0	13.9	0	0	0	0
	0	0	0	0	0	0	0	89.12647226	
	50.92941272	76.39411908	76.39411908		76.39411908		38.19705954		
	12.73235318	0	12.73235318	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	38.19705954	25.46470636		38.19705954		25.46470636	0
	0	0	0	0	0	0	0	0	
2004	1	2	3	0	29.006	0	0	0	0
	0	0	0	0	47.44098742		94.88197484	0	
	47.44098742	0	47.44098742	0	0	0	47.44098742	0	0
	0	94.88197484	0	0	0	0	0	0	0
	0	0	0	0	0	0	47.44098742	0	0
	0	0	47.44098742	0	0	0	0	0	0
	0	0	0	0					
2005	1	2	3	0	17.28	0	0	0	0
	0	0	4.782822224	4.782822224	0	9.565644449		14.34846667	
	14.34846667	14.34846667	0	22.84041632		4.782822224		36.82097396	
	13.98055716	55.24647708	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	
	4.782822224	4.782822224	23.91411112		14.34846667		14.34846667		
	9.443008104	59.90666296	22.84041632		50.34101851		22.84041632	0	
	0	0	0	0	0	0	0	0	
2006	1	2	3	0	17.314	0	0	0	0
	0	0	0	0	0	11.62746703	0	0	0

	35.15598839	34.8824011	11.62746703	46.50986813	23.39172771	0
	0 0	0 0	0 0	0 0	0 0	0
	0 0	0 0	0 0	0 0	23.25493407	
	11.62746703	58.54771611	46.64666178	23.25493407	44.43060329	0
	0 0	0 0	0 0	0 0	0 0	0
2008	1 2 3 0	15.45 0	0 0	0 0	0 0	0
	0 0	0 0	0 0	0 0	0 0	0
	11.76426068	0 0	0 0	0 0	0 0	0
	0 0	0 0	0 0	0 0	0 0	0
	0 0	0 0	0 0	11.76426068	0 0	11.76426068
	0 0	0 0	0 0	0 0	0 0	0
2009	1 2 3 0	20.35 0	0 0	0 0	0 0	0
	0 0	0 0	0 0	0 0	100.9249736	0
	32.81609577	0 0	32.81609577	278.5901719	0 0	0
	0 0	0 0	0 0	0 0	0 0	0
	0 0	0 0	32.81609577	46.43169531	144.8799826	
	98.4482873	65.63219154	68.10887781	144.8799826	44.58035645	
	32.81609577	0 0	0 0	0 0	0 0	0
2010	1 2 3 0	13.762 0	0 0	0 0	0 0	0
	0 0	0 0	0 0	0 0	0 0	0
	23.52852136	0 0	11.76426068	0 0	0 0	0
	0 0	0 0	0 0	0 0	0 0	0
	0 0	0 0	0 0	11.76426068	0 0	23.52852136
	0 0	0 0	0 0	0 0	0 0	11.76426068

### add recent if CA sex-specific PACFIN data translation issue is resolved

# 2009 Oregon trawl fleet (n=35)

1973	1 3 3 0	7.06 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
	0.000 0.000	0.000 0.000	0.000 2.767	0.000 11.067	5.534 5.534	1.383 0.000
	1.383 0.000	1.383 0.000	1.383 0.000	0.000 0.000	0.000 0.000	0.000 0.000
	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
	2.767 2.767	4.150 4.150	4.150 1.383	1.383 5.534	1.383 9.684	8.301 2.767
	1.383 0.000	0.000 0.000	0.000 0.000	0.000 0.000		
1974	1 3 3 0	28.24 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
	0.000 0.000	24.747 0.000	24.747 0.000	52.608 0.000	68.672 0.000	49.493 3.501
	112.604 297.103	682.084 622.474	622.474 443.902	127.509 210.032	27.861 0.000	0.000 0.000
	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 24.747
	3.501 3.501	47.040 62.724	62.724 31.356	297.103 589.811	1267.139 787.810	545.257 117.393
	52.608 24.747	0.000 0.000	0.000 0.000	0.000 0.000		
1976	1 3 3 0	14.12 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
	0.000 0.000	0.000 0.000	0.000 0.000	0.000 17.878	7.734 7.734	35.757 0.000
	48.312 33.346	10.144 84.571	84.571 81.658	35.757 17.878	17.878 0.000	0.000 0.000
	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
	0.000 0.000	17.878 30.433	30.433 71.513	71.513 109.680	56.046 58.456	38.167 28.023
	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000		7.734
1977	1 3 3 0	56.48 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
	0.000 0.000	10.035 0.000	7.015 8.817	25.867 22.360	75.969 108.127	101.339
	186.671 130.426	216.905 302.398	302.398 353.411	205.652 87.728	34.806 12.703	0.000 0.000
	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	10.035 10.035	10.523
	27.196 22.360	41.604 101.474	101.474 171.606	340.748 721.575	818.309 660.887	182.312 98.129
	6.175 9.195	0.000 0.000	0.000 0.000	0.000 0.000		
1978	1 3 3 0	49.42 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
	0.000 0.000	4.576 0.000	0.000 5.077	2.538 52.257	33.175 41.638	
	192.485 248.087	275.452 237.034	327.842 222.822	177.763 12.783	0.000 0.000	0.000 0.000
	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	
	0.000 0.000	7.884 24.169	24.169 55.158	237.074 386.665	443.795 619.595	386.876 170.014
	20.024 7.115	0.000 0.000	0.000 0.000	0.000 0.000		
1979	1 3 3 0	42.36 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
	0.000 0.000	0.000 0.000	139.595 139.595	285.251 430.908	570.503 309.497	887.753
	1863.734 1502.698	1782.579 1668.419	1668.419 1812.213	595.119 674.996	87.807 0.000	0.000 0.000
	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	139.595
	285.251 449.092	1007.472 1239.908	1239.908 1738.589	1643.333 2917.632	3310.562 2570.775	792.297 466.007
	16.571 87.807	0.000 0.000	0.000 0.000	0.000 0.000		
1980	1 3 3 0	141.20 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
	0.000 0.000	0.000 0.000	0.000 0.000	529.666 2318.382	324.938 245.628	548.544 98.561
	1116.778 2677.047	4085.327 4420.780	6007.093 7404.078		67.431 0.000	355.317



1992	1	3	3	0	222.23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	115.721	84.226	338.482	1564.111	3372.224	2960.916		
	4114.962	4372.073	6306.535	6120.810	6331.147	1628.552	1381.475	548.907	7.947	0.000	0.000		
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	61.661	538.151	1243.056	3063.813	4374.532	6927.215	9621.340	8857.575	7501.344	5368.191	961.550		
	654.096	38.932	0.000	0.000	0.000	0.000							
1993	1	3	3	0	155.32	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	12.065	467.221	42.059	987.307	2210.612	2425.457		
	3012.190	5169.135	5495.870	5607.836	4603.483	1537.435	1012.900	605.948	243.725	0.000	0.000		
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	8.885	271.891	1205.304	2497.950	3536.264	6026.149	5401.431	5071.262	3800.353	1886.889	607.080		
	203.017	0.000	0.000	0.000	0.000	0.000							
1994	1	3	3	0	105.90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	32.208	27.112	81.736	285.624	499.882	835.149	1463.266		
	1517.552	1461.971	1800.963	1293.953	688.914	339.352	17.912	0.000	9.668	34.382	0.000		
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.895	17.912		
	37.921	55.605	724.931	984.675	2249.048	2385.906	2226.832	2199.997	1209.730	726.068	410.231		
	74.401	0.000	0.000	0.000	0.000	0.000							
1995	1	3	3	0	112.96	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	173.919	210.237	371.597	318.813	538.281	555.071		
	690.314	775.748	768.604	459.198	203.750	135.526	17.509	2.442	0.000	0.000	66.512		
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.883	7.187	154.642			
	183.923	502.315	546.710	829.713	790.391	1079.112	726.910	441.560	282.438	135.866	44.253		
	10.020	0.000	0.000	0.000	0.000	0.000							
1996	1	3	3	0	134.14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	3.360	0.000	22.509	21.514	226.132	366.721	439.109	943.300	832.196	895.728		
	801.951	850.336	735.966	580.049	512.687	158.433	87.282	61.812	0.000	7.498	0.000		
	0.000	0.000	0.000	0.000	0.000	2.284	2.284	0.000	5.643	33.966			
	207.001	407.200	1009.203	1166.363	1147.551	1033.274	954.265	1132.426	1088.164	506.036	197.169		
	9.781	33.345	0.000	0.000	0.000	0.000							
1997	1	3	3	0	197.68	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	45.981	202.905	251.392	823.556	981.736	1422.651		
	1689.262	1685.030	1854.608	965.222	388.379	425.215	131.957	59.311	42.118	0.000	0.000		
	0.000	0.000	0.000	0.000	0.000	22.783	6.139	0.000	13.770	28.752			
	102.378	407.209	1023.103	2020.949	2698.830	3085.063	2538.051	1716.999	792.469	307.146	106.658		
	80.142	1.252	4.238	0.000	0.000	0.000							
1998	1	3	3	0	197.68	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	52.626	58.361	178.399	453.731	1011.004	1413.360	1296.899	1511.663		
	1754.953	1165.058	1272.065	1202.941	644.173	146.375	113.829	13.165	0.000	0.000	0.000		
	0.000	0.000	0.000	0.000	0.000	0.000	8.186	0.000	0.000	72.852			
	118.176	745.610	1159.350	1657.024	2610.224	2505.880	2395.278	1739.195	1161.664	333.896	191.658		
	16.105	0.000	0.000	0.000	0.000	0.000							
1999	1	3	3	0	197.68	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	13.190	11.742	24.209	44.948	128.620	197.192	885.817	1049.915	1276.502	1713.185		
	1723.515	1352.987	1406.514	1058.130	439.894	269.870	115.495	12.073	1.526	0.000	0.000		
	0.000	0.000	0.000	0.000	3.914	7.828	3.914	14.834	0.000	59.341			
	132.177	764.762	1073.316	1490.506	1847.700	2069.803	1965.025	1370.473	450.852	438.714	142.545		
	14.952	0.000	0.000	0.000	0.000	0.000							
2000	1	3	3	0	93.21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	4.673	0.000	4.673	9.346	24.697	39.210	38.617	29.244	32.287	49.268			
	33.846	45.633	14.350	11.543	9.760	1.112	2.512	1.000	0.000	0.000	0.000		
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	21.804			
	31.379	51.861	50.307	51.936	71.330	65.346	36.608	22.285	10.717	2.440	1.512		
	0.000	0.000	0.000	0.000	0.000	0.000							
2001	1	3	3	0	159.30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	6.879	42.735	157.739	428.298	467.502	379.021	950.854	476.394			
	2166.331	1308.553	1223.460	592.477	105.563	113.457	48.874	27.167	0.000	0.000			
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	13.757	41.253			
	166.149	315.970	1052.224	1524.417	908.815	4022.688	1367.975	1583.057	1420.601	91.604	39.941		
	5.785	0.000	0.000	0.000	0.000	0.000							
2002	1	3	3	0	306.928	0	0	0	0	0	0	0	0
	0	0	0	0	98.86559642	269.7670634			595.2650446				
	1017.186445	1242.492917		608.0596026	608.3735256			556.8397593					
	760.6565566	455.019523		281.3994592	373.2206942			281.4168543					
	179.2845744	87.76179468		0	0	0	0	0	0	0	0		
	0	0	0	6.20685750	62.84047194		72.31793155		279.9192301				
	757.7950677	925.7384429		939.9061057	1034.755003			1161.843252					
	751.0413356	490.8942002		247.869758	52.99679037			129.9882925					
	11.31070454	12.413715	6.2068575	6.20685750	0		0						

2003	1	3	3	0	125.136	0	0	0	0	0	4.3349753
	0	0	0	0	0	4.639296611	28.76643536	73.80198642			
	140.6937644		239.6300191		220.1768194		222.4545743		174.9957982		
	116.311347		84.47138579		78.94642226		32.48597675		25.08190607		0
	0	0	0	0	0	0	0	0	0	0	0
	0	7.220393897	0		4.639296611		72.86826726		157.8618748		
	196.5049018		305.0995755		264.8849817		189.2935967		102.0138341		
	77.64600011		0	4.359087827	0	7.220393897		0	0	0	
	0										
2004	1	3	3	0	161.688	0	0	0	0	0	
	5.976290068		0	7.968386757	5.976290068		17.23933738		21.10671996		
	20.78852272		84.40808335		188.600115		158.8472213		175.5062725		
	183.4020305		183.8308333		156.888047		143.8161838		174.2961464		
	58.63086651		28.04170466		0	0	0	0	0	0	0
	0	0	0	0	0	11.95258014	0		2.643378622		
	61.26077072		60.55842823		86.61132349		142.4496219		144.6372894		
	153.888852		326.6961474		284.647631		149.9611939		86.05981638		
	38.59118691		8.678380129		22.54608829		5.976290068		0	0	0
	0										
2005	1	3	3	0	260.02	0	0	0	0	0	
	7.883113451		7.883113451		325.835356		63.06490761		294.3029022		
	23.64934035		65.03568597		70.94802106		85.47957809		162.0433637		
	155.6982083		102.1323923		1041.022318		1198.912236		550.6912904		
	287.0580046		245.9563628		132.7201579		49.04056907		0	0	
	2.708817619		0	0	0	47.29868071		23.64934035			
	302.1860156		55.18179416		302.1860156		31.5324538		294.3029022		
	50.20450321		73.85384356		105.3862974		117.846386		406.9328604		
	475.6381426		1559.889729		712.532065		357.1938826		237.6635725		
	84.4883868		31.5324538		5.013967675		0	0	0	0	0
2006	1	3	3	0	220.66	0	0	0	0	0	
	3.991749941		5.735770001		2.867884685		9.397676778		8.263108031		
	26.00963055		9.523964655		44.75458504		47.17026342		42.48764951		
	52.74465296		62.66679415		94.46924637		79.43605885		63.76114712		
	30.46710174		13.6811709		13.60716226		5.089487879		0	0	0
	0	0	0	0	0	3.173620152		0	0		
	3.154673185		3.173620152		6.08351909		25.37799242		49.24962839		
	48.91217931		101.4776027		119.1319425		137.3939985		134.8723433		
	63.38870453		14.39768614		12.66972904		6.229861224		3.199106757		0
	0	0	0								
2007	1	3	3	0	44.316	0	0	0	0	0	
	0	0	0	0	69.88125388		0	46.56698207		46.41278715	
	23.28349104		23.28349104		64.55990747		86.97914792		111.346404		
	43.88117084		0	0	0		0	0	0	0	0
	0	0	0	0	0		0	0	0	17.91074399	
	23.28349104		0	0	47.29247237		40.14395167		0		23.28349104
	22.71560203		23.28349104		23.12929612		0	0	0	0	0
	0	0	0								
2008	1	3	3	0	89.152	0	0	0	0	0	
	16.66608396		0	12.12702566	0	12.74651593		0	5.869784702		
	14.06656498		27.15864885		4.266218613		21.68577067		14.06196073		
	12.28158575		12.68558111		5.691207406		7.386730264		1.532820638		0
	4.598460392		1.333822257		0	0	0	0	0	0	0
	0	0	0	0	4.540372061		0	8.935424456		2.59574344	
	39.03601268		2.804144947		16.5773123		7.371956985		19.5100371		
	8.665682145		3.099277524		24.38174012		0	11.61149438		16.08517631	
	13.72592364		1.532820638		4.336964064		0	0			
2009	1	3	3	0	297.742	0	0	0	32.66890951	0	
	48.96713606		6.495527777		17.79273959		19.8102782		140.5539271		
	54.2798208		234.4513496		51.55175013		68.83777829		47.61069889		
	97.11731782		21.92238031		105.5523387		370.6842951		237.218086		
	226.2324189		68.19234718		30.0200864		6.292436855		16.51704169		
	1.852059573		0	0	0	3.942830389		0	64.86147624		
	20.32658516		66.52927804		10.86471804		37.14591566		279.6666038		
	200.312394		223.9193635		37.93426158		26.14059297		55.37593753		
	87.60665572		140.852481		144.1534106		88.17009428		221.2170214		
	20.82650738		51.49523139		0	42.56800776		0	3.942830389	0	
	0										
2010	1	3	3	0	83.818	0	0	0	0	0	
	0	0	0	3.160907707	7.682176002		39.93389295		65.03529641		
	34.81497234		48.1796852		18.83719377		30.22697208		61.1173614		

		90.02506431	86.92888779	106.4113099	50.80873038	22.6723054					
		13.35822965	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
		0 0	0 0	0 0	26.26403086	65.39893133					36.99906731
		35.03011224	33.17918267	73.01454639	159.2855594	119.7976894					
		129.1669051	72.76787353	12.18861843	0 0	0 0	0 0	0 0	0 0	0 0	0
		0 0									
#	#2009 Washington trawl fleet, updated 2007-2008 (n=40)										
1968		1 4	0 0	14.12	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	104.085	38.004	226.321	832.678	1805.744		
		1873.525 2314.542	2929.124 2288.164	1030.921 226.321	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1969		1 4	0 0	14.12	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	18.083	90.417	386.539	735.425	1168.734		
		1878.545 2396.969	2178.432 1588.417	969.766 244.894	18.083	0.000	18.083	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1970		1 4	0 0	7.06	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	204.703	736.932	2006.092		
		1228.219 1473.863	2374.558 1719.507	900.694 245.644	81.881	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1971		1 4	0 0	56.48	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	25.493	15.118	698.672	2224.221	6999.636		
		11321.446 14441.291	14121.699 12357.950	5995.173 2521.231	373.407	6.235	0.000	6.235	0.000		
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000		
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000		
1972		1 4	0 0	14.12	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	108.600	434.400	1954.115		
		4396.130 7330.157	5212.799 4564.854	1956.170 1250.156	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1973		1 4	0 0	7.06	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	18.303	0.000	0.000	36.606	91.516	384.366	
		805.339 1153.099	677.217 640.611	219.638 164.728	18.303	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
#1975		1 4	0 0	35.3	0.000	0.000	0.000	0.000	36.129	0.000	
		0.000 167.114	828.813 756.238	1829.934 2569.234	7512.123	8574.651	10358.947	7042.944	2111.533		
		835.555 631.673	859.008 939.614	454.918 318.678	42.103	2.403	0.000	0.000	0.000		
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000		
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000		
1976		1 4	3 0	21.18	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	1.008 1.008	3.023 0.000	6.046	86.268	343.811	931.058			
		796.239 1838.937	2309.179 4016.321	3367.749 1844.658	887.294	126.756	204.962	0.000	0.000		
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000		
		1.008 3.023	9.070 344.819	1162.651 1691.521	3574.652	9669.922	13300.935	9859.485	1941.759		
		459.482 0.000	1.008 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000		
1977		1 4	3 0	14.12	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	33.108	33.108	108.279		
		357.943 333.791	410.319 811.682	975.864 568.259	243.423	42.063	42.063	0.000	0.000		
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	16.554		
		42.063 42.063	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000		
1978		1 4	3 0	35.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	4.419 4.419	8.837	13.256	37.109	354.250	812.191		
		1227.754 1256.701	1529.120 1585.175	1283.201 1008.062	363.237	115.907	0.000	0.000	0.000		
		0.000 0.000	0.000 0.000	0.000 0.000	0.000	0.000	0.000	0.000	0.000		
		8.837 17.675	259.606 442.456	1463.045 2897.746	3446.808	4816.816	3652.448	917.330			
		378.096 0.000	0.000 25.650	0.000 0.000	0.000	0.000	0.000	0.000	0.000		
1979		1 4	3 0	56.48	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000 0.000	0.000 0.000	34.895 0.000	515.372	496.375	998.847	2518.755			
		2409.665 3833.332	1742.858 1843.348	1145.716 1036.302	825.716	20.444	0.000	0.000	0.000		

				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
				0.000	246.780	17.447	958.533	1675.576	6724.120	6135.442	7048.722	8759.053	5719.057	2486.972
1980				129.184	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	1	4	3	0		127.08	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		197.856	0.000	197.856	31.514	625.082	427.226	521.769	903.344	2597.881	3704.160	4290.218		
		3738.236	6563.053	7713.342	7701.902	4094.748	2073.082	1580.696	327.456	159.428	0.000	0.000		
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	260.885		
		625.082	1708.905	2877.867	3689.800	4346.649	6969.248	7760.286	11343.321	13596.222	11141.158	4157.758		
		1112.224	436.195	0.000	0.000	38.941	0.000							
1981		1	4	3	0	127.08	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000	0.000	0.000	5.299	10.599	14.541	42.782	108.724	154.700	312.742	358.338		
		450.688	545.602	1060.315	1241.733	637.714	302.818	215.344	78.870	28.205	0.000	0.000		
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.299	10.061			
		24.613	39.835	236.931	412.858	503.982	636.692	971.332	1650.396	2094.412	1390.323	685.355		
1982		190.354	75.473	0.000	0.000	0.000	0.000							
	1	4	3	0	91.78	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000	0.000	0.000	24.886	0.000	328.546	43.122	202.863	557.287	1585.350	869.278		
		926.152	1345.255	1221.470	2008.117	1128.658	641.997	136.741	44.692	17.475	5.032	0.000		
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.209	0.000	29.096			
		102.623	39.920	442.944	1193.196	1940.341	1971.903	2377.540	2918.537	2252.714	1828.661	566.036		
1983		419.091	110.787	0.000	0.000	0.000	0.000							
	1	4	3	0	120.02	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000	0.000	0.000	43.912	165.137	247.407	367.088	1020.018	1715.425	2842.822	3647.473		
		3476.488	3301.649	3060.912	4643.066	4229.710	1137.740	735.821	449.790	64.881	0.000	0.000		
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	20.393	84.769	269.560			
		1061.569	1350.783	2080.169	2201.005	4388.296	4022.645	6836.583	5901.799	7087.699	4676.106	1300.412		
1984		396.186	142.642	0.000	0.000	0.000	0.000							
	1	4	3	0	120.02	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000	0.000	0.000	32.631	97.892	229.178	236.408	325.627	369.959	569.673	1328.340		
		1775.337	1740.033	1547.440	3062.303	1635.041	1404.509	627.224	176.806	25.298	0.000	0.000		
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	66.685	168.482			
		293.714	400.137	596.430	760.519	1374.774	2116.568	2997.191	4677.699	5316.577	4694.119	1861.550		
1985		301.851	0.000	0.000	0.000	0.000	0.000							
	1	4	3	0	127.08	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000	0.000	0.000	2.989	15.839	103.330	238.384	559.357	531.192	605.844	1490.291		
		2030.809	2058.868	3694.619	3111.035	2832.487	1655.595	681.362	176.185	0.000	0.000			
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.989	16.735	8.966			
		134.994	327.628	574.765	745.689	1028.635	2307.471	5325.174	5336.196	6305.292	2654.871	896.536		
1986		331.726	66.706	0.000	0.000	0.000	0.000							
	1	4	3	0	120.02	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000	0.000	0.000	35.285	32.496	56.564	317.902	494.064	810.430	1425.069	1827.439		
		2162.542	2469.396	2173.539	2203.401	1389.945	628.182	387.079	85.347	12.121	0.000	0.000		
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	17.642			
		114.467	298.140	595.463	1519.995	2483.161	3714.314	3509.131	4297.254	2672.789	1361.153	936.321		
1987		394.696	71.085	19.863	0.000	0.000	0.000							
	1	4	3	0	176.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000	0.000	0.000	28.077	32.720	75.542	238.493	321.462	833.518	1530.834	2950.135		
		2330.603	4218.695	4258.030	3938.331	3673.934	2095.398	811.689	591.427	0.000	0.000	0.000		
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	140.982			
		177.379	249.819	557.568	758.980	3345.156	4763.938	4288.003	5709.554	3956.157	3728.052	843.278		
1988		493.721	37.343	5.002	0.000	0.000	0.000							
	1	4	3	0	134.14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000	0.000	3.460	17.731	80.829	45.926	243.570	96.744	304.190	714.261	999.777		
		2523.393	2094.367	2206.616	2014.405	2461.060	1696.944	822.223	473.125	125.072	21.110	0.000		
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	13.770	22.969			
		65.405	253.439	130.450	383.261	1050.815	2459.113	2934.398	3182.969	3479.590	2729.951	1551.980		
1989		237.927	323.413	0.000	0.000	0.000	0.000							
	1	4	3	0	127.08	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000	0.000	53.174	88.492	116.308	289.100	372.638	881.412	1513.833	1878.578			
		3642.322	3246.403	2851.711	1747.321	1451.045	930.003	524.341	24.538	8.420	0.000	0.000		
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	22.857	140.874	16.190			
		198.857	343.503	438.646	1720.645	2983.983	3468.546	4565.652	5343.947	4305.480	2391.239	601.283		
1990		310.756	0.000	6.230	0.000	0.000	0.000							
	1	4	3	0	120.02	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000	0.000	0.000	8.864	4.432	26.592	112.955	197.503	1124.477	762.708	2733.743		
		3408.024	3979.719	3121.514	2249.299	2550.504	988.332	390.145	176.454	0.000	0.000	0.000		
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	39.716	13.296	22.160			
		130.526	476.762	865.413	1659.118	2518.488	4321.956	5053.284	5045.810	3552.408	1720.371	1363.853		
		100.939	0.000	0.000	0.000	0.000	0.000							

1991	1	4	3	0	155.32	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	132.032	113.271	954.080	602.738	1829.870	3195.848		
	4568.224	3884.806	4384.573	4207.931	2604.531	2467.894	706.180	9.774	74.582	0.000	0.000		
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.538		
	75.092	336.273	1085.855	2486.687	2889.712	6601.191	8277.912	9176.603	7461.456	4147.401	1276.834		
	502.043	74.582	0.000	0.000	3.321	0.000							
1992	1	4	3	0	141.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	19.331	0.000	65.605	167.228	413.396	593.861	898.962	1686.336	1954.679	1933.381		
	2827.834	3725.351	3291.025	3724.332	3757.101	2063.323	1296.034	55.827	134.573	0.000	0.000		
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.040	15.226	108.965		
	225.978	604.399	1410.847	3039.418	3430.809	4193.906	7117.286	7542.803	4968.539	3774.365	1218.769		
	5.845	0.000	0.000	0.000	0.000								
1993	1	4	3	0	120.02	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	1.174	0.000	0.000	145.991	55.140	339.713	1015.904	1258.626	1583.087	1731.309		
	1730.824	1129.471	1365.677	554.052	565.490	200.104	1.184	1.184	0.000	0.000	0.000		
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.998	1.998	86.438		
	280.548	1017.158	1047.291	2009.383	2190.674	1956.893	1933.797	893.195	471.622	185.563	91.737		
	0.000	0.000	0.000	0.000	0.000								
1994	1	4	3	0	105.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	25.065	25.065	119.353	173.235	498.026	347.428	999.240	1403.804	1148.810		
	1693.197	784.059	1287.478	714.886	581.939	480.321	90.763	59.231	0.000	0.000	0.000		
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.759	37.138	290.499		
	209.174	450.722	769.290	1102.292	2358.564	1672.643	2080.482	1350.925	1409.134	622.703	255.417		
	3.862	0.000	0.000	0.000	0.000								
1995	1	4	3	0	155.32	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	13.626	21.888	42.826	155.416	184.139	260.684	505.212	510.585	547.770		
	837.511	612.709	348.875	195.276	120.347	19.413	41.192	2.565	0.000	1.809	0.000		
	0.000	0.000	0.000	0.000	0.000	6.813	6.813	11.023	45.444	60.663			
	166.635	330.332	438.269	642.684	938.887	754.765	465.388	432.425	216.576	77.676	34.031		
	0.000	31.708	0.000	0.000	0.000								
1996	1	4	3	0	105.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	11.263	23.895	17.558	46.323	69.688	100.866	143.980	152.860	246.662	253.588		
	316.023	382.446	576.702	381.673	210.927	40.580	18.140	3.449	0.000	0.000	0.000		
	0.000	0.000	0.000	0.000	0.000	1.969	16.569	9.477	20.321	31.888			
	122.682	138.799	201.275	244.161	512.928	684.214	513.045	443.938	500.053	168.263	80.697		
	0.000	0.000	8.188	0.000	0.000								
1997	1	4	3	0	120.02	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	1.161	43.012	86.023	161.666	168.856	281.573	561.911	1121.116		
	704.254	806.316	955.923	710.574	304.057	252.957	95.198	14.749	0.000	0.000	0.000		
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	40.691	40.691	47.718			
	333.713	172.561	310.326	929.052	955.761	1403.580	911.236	1101.395	766.225	214.752	62.384		
	14.749	0.000	0.000	0.000	0.000								
1998	1	4	3	0	141.61	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	201.351	9.389	71.792	158.772	203.049	523.069	761.094	831.782		
	778.245	685.331	676.433	411.148	463.548	137.832	45.995	0.000	36.865	0.000	0.000		
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	40.691	15.560	35.388	76.959		
	296.725	256.734	553.538	764.909	722.775	934.879	1380.343	585.381	312.343	222.569	78.751		
	8.665	0.000	0.000	0.000	0.000								
1999	1	4	3	0	120.534	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	4.915	12.006	1.779	33.232	58.200	87.069	59.032	125.859	179.031	415.199		
	386.455	212.276	507.216	343.535	361.064	201.140	24.138	0.000	0.000	0.000	1.821		
	0.000	0.000	0.000	0.000	0.000	1.088	0.000	0.000	34.497	55.505			
	113.264	92.731	198.116	330.745	295.913	500.312	775.089	638.619	523.905	108.118	24.862		
	11.499	17.417	0.000	0.000	0.000								
2000	1	4	3	0	38.602	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	1.481	4.205	4.690	8.643	12.707	16.409	8.126	22.247		
	18.609	21.784	14.554	4.205	7.264	1.012	5.065	0.000	0.000	0.000	0.000		
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.158	0.000	6.556			
	3.871	8.643	24.919	15.925	23.617	30.244	40.264	19.303	7.055	2.082	0.593		
	1.012	0.000	0.000	0.000	0.000								
2001	1	4	3	0	57.16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	4.606	26.627	28.342	44.598	86.517	154.969			
	1085.183	213.889	264.800	153.320	976.554	118.618	20.205	0.000	5.386	0.000	0.000		
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	845.704			
	23.467	1722.602	3349.163	1767.405	1014.791	569.248	1275.507	379.867	1175.550	50.445	66.011		
	0.000	22.930	0.000	0.000	0.000	0.000							
2002	1	4	3	0	145.12	0	0	0	0	0	0	0	0
	0	0	0	0	0	356.1335508		38.42773558		106.4990929			
	217.0147332	132.4261379		173.1431022		200.420579		397.8390792					
	284.9177117	215.1178573		301.7466482		269.853779		69.6909059					

		11.75192124	3.625927805	3.625927805	0	0	0	0	0
		0 0	0 0	0 4.073019649	4.291671732	4.291671732	44.49454432		
		69.46144037	229.063026	299.3955674	389.8577344	389.8577344	507.6423096		
		464.5014098	621.6698736	73.91518411	99.84919177	99.84919177	3.100152888		
		8.858823048	8.876427597	0 0	0 0	0 0			
2003	1 4	3 0	87.888 0	0 0	0 0	0 0	0 0	0 0	0 0
	0 0	0 0	6.139657716	4.807232872	4.807232872	7.732238132			
	36.55104078	21.49599618	21.57193275	17.21232423	17.21232423	12.82807006			
	12.27931543	18.53951952	32.83942852	30.71080892	30.71080892	37.82496357			
	13.79102234	13.95376754	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	0 0	0 0	0 0	15.07006894	15.07006894	21.76787736			
	13.70484533	46.53206703	33.09012427	43.43240323	43.43240323	25.12603058			
	13.95376754	8.372260521	6.250321995	7.185122195	7.185122195	4.727101225			
	3.149996199	1.240785951	0 0	0 0	0 0				
	1 4	3 0	152.35 0	0 0	0 0	0 0	0 0	0 0	0 0
2004	4.406003003	0 8.150135874	0 0	0.451391706	0.451391706	12.23555929			
	28.5357691	26.60004877	17.3090083	18.29997077	18.29997077	23.33100978			
	27.38854083	25.29812254	28.63930518	14.49356315	14.49356315	43.81165241			
	9.449169699	7.157893294	6.879262792	0.717174991	0.717174991	0.464302227			
	0.875569136	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	0 5.726242725	10.18773752	11.17243794	1.848679671	1.848679671	21.60650428			
	50.97140729	36.63295334	68.44560391	32.83555273	32.83555273	20.33142554			
	11.68558109	8.247908143	0.457319915	2.203001502	2.203001502	0 0	0 0	0 0	0 0
	0								
	1 4	3 0	401.998 0	0 0	0 0	0 0	0 0	0 0	0 0
2005	0 0	0 0	1.10987516	3.813934639	3.813934639	14.37504541			
	27.75469324	67.92640766	145.3327156	131.3442255	131.3442255	118.8111742			
	115.2333251	110.0318391	151.5201171	126.5163501	126.5163501	30.66559732			
	37.44159678	24.79080658	17.72763416	8.324063697	8.324063697	0 0	0 0	0 0	0 0
	0 0	0 0	0 0	0 0	0 0	1.10987516			
	4.41536256	15.07093638	35.62549034	57.10664323	57.10664323	86.52035238			
	103.0209119	164.7353124	227.8712336	161.8336616	161.8336616	125.2414841			
	53.29548387	27.57437319	32.60172448	10.98776408	10.98776408	12.48609555			
	0.713491174	0							
	1 4	3 0	192.604 0	0 0	0 0	0 0	0 0	0 0	0 0
2006	0.401405955	0.890042848	0.846427379	0.802811909	0.802811909	2.354275799			
	6.255018323	7.47044081	8.506042611	8.552872426	8.552872426	8.227865524			
	4.71619216	4.373930002	11.58579434	8.61619733	8.61619733	13.71755024			
	9.865046071	11.87191776	2.537381221	0.936036561	0.936036561	0 0	0 0	0 0	0 0
	0 0	0 0	0 0	0.890042848	0.890042848	0.445021424			
	0.445021424	1.599837341	2.885499667	3.69238949	3.69238949	8.138592969			
	13.25321401	11.71329241	5.756484128	3.869238795	3.869238795	11.2944175			
	6.07570156	17.19908773	2.443742086	4.925169173	4.925169173	0.738035509			
	0.649984549	0.589254399	0.571109145	0 0	0 0				
	1 4	3 0	129.138 0	0 0	0 0	0 0	0.390383088		
2007	0.352674684	12.04027813	0 0	81.53995241	81.53995241	15.75738533			
	33.4688169	0 180.0751401	10.74801586	256.8035931	256.8035931	45.85809148			
	121.6978586	21.62135341	188.4536614	27.17665633	27.17665633	250.6816976			
	22.5158764	0 26.78411486	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	0.390383088	0.390383088	0 0	0 0	0 0	10.22873679	0 0		
	18.08657481	100.5302981	25.92252545	87.61000981	87.61000981	121.5569783			
	55.94362963	114.1894383	4.568503984	133.0733482	133.0733482	0 0	150.3987995		
	0 152.2618672	0 0	0 0	0 0	0 0				
	1 4	3 0	127.284 0	0 0	0 0	0 0	0 0	0 0	0 0
	0 0	0 0	0 0	79.6744845	79.6744845	33.77750746			
2008	27.91703883	42.76455202	70.753833 26.07833918	42.26701224	42.26701224	46.9576002			
	52.6015203	63.31827068	33.27597241	89.56256066	89.56256066	63.11236202			
	14.80610414	0 25.66187323	0 0	0 0	0 0	0 0	0 0	0 0	0 0
	0 0	0 0	118.9216772	0 0	0 0	79.85770407	0 0		
	139.8996045	21.89854096	108.9368153	15.18095325	15.18095325	91.88803571			
	56.47617357	81.71374646	32.98393228	74.37507608	74.37507608	46.92283622			
	78.44925674	0 0	0 0						
	1 4	3 0	138.87 0	0 0	0 0	0 0	0 0	0 0	0 0
	0 15.15120093	0 0	0.170907749	0.984127073	0.984127073	20.66482701			
	112.2067168	159.4636478	112.7513359	130.9024196	130.9024196	10.82990492			
2009	27.53179418	16.16361086	58.47881485	44.45341907	44.45341907	84.16637849			
	32.77114859	3.971135115	1.365846838	1.125059146	1.125059146	0.308692587			
	0.308692587	0 0	0 0	0 0	0 0	2.443742086			
	0 0	1.605588913	17.06005012	161.9662427	161.9662427	10.84823792			
	4.502929349	10.39326879	32.47591048	28.27824748	28.27824748	33.70588538			

		7.038620132	15.60177441	1.962349199	0.929589504	1.239187671	0	
		0 0	0					
2010	1 4	3 0	152.184 0	0 0	0 0	0 0	0	0
	0 0	0 0.346478197	0 0	0 0	0 0	1.056257356		
	5.04217013	8.657554298	25.00919765	23.67858366	20.82911969			
	23.77660638	31.27891647	18.12775668	16.38521388	8.287615922			
	4.898159301	0.801685513	0.925933568	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0.774588595	0.201374132			
	2.738152159	1.232182964	10.88924764	21.30693226	23.90494673			
	29.67445162	20.85042049	7.478223444	6.596369458	2.844950029			
	2.129789416	0.565545686	0 0	0 0	0 0			
# 2011 California South non-trawl fleet no 2008 or 2010 (n=25)								
1978	1 5	0 0	1.138 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
	0 0	155.769231	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
1979	1 5	0 0	2.38 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	5.102041
	10.204082 5.102041	15.306123 10.204082 5.102041	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
1980	1 5	0 0	8.14 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	14.423077
	19.23077 128.344231	17.528667 28.547539 1.552795	12.720975 9.615385 4.807692	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
1985	1 5	0 0	8.416 0	0 0	0 0	0 0	0	0
	0 0	0 0	2.172185 0	4.344371 0	99.14279 39.355556	79.893617		
	118.391963	117.853901	39.787234 39.893617 39.355556	0 0	0 0	0 0	0	
	0 0	0 0	0 0	0 0	0 0	0 0	0	
	0 0	0 0	0 0	0 0	0 0	0 0	0	
	0 0	0 0	0 0	0 0	0 0	0 0	0	
1986	1 5	0 0	42.8 0	0 0	0 0	0 0	0	0
	0 0	0 0	35.122195 88.536521 85.652273	88.53637 140.140043	202.02677			
	102.894765	90.543284 48.272934 8.788462	28.683644 0	4.267677 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
1987	1 5	0 0	30.56 0	0 0	0 0	0 0	14.103093	0
	0 0	0 0	0 0	242.091683 268.485149	266.77394			
	135.711547	361.897354	292.364077 238.470094	24.000978 50.449512	13.910795			
	8.816178 0	0 3.113208	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
1988	1 5	0 0	25.972 0	0 0	0 0	0 0	0	0
	0 3.707071	0 3.707071	20.750373 46.277146 86.763573	55.235479 69.175557 259.0428				
	204.725494	217.969255	105.381908 9.610526	0 0	0 0	0 0	0	
	0 0	0 0	0 0	0 0	0 0	0 0	0	
	0 0	0 0	0 0	0 0	0 0	0 0	0	
	0 0	0 0	0 0	0 0	0 0	0 0	0	
1989	1 5	0 0	72.54 0	0 0	0 0	0 0	0	0
	0 0	12.27 7.326733	74.27697 175.021397	329.4444 479.535344				
	466.563555	359.872034	208.215837 365.635163	197.286374	58.407283			
	112.627327	0 18.63531	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
	0 0	0 0	0 0	0 0	0 0	0 0	0	0
1990	1 5	0 0	30.592 0	0 0	0 0	0 0	0	0
	2.691589 0	8.737345 13.932535	22.158915 35.070509	97.287122 97.475343	247.187963 93.303613			
	83.571667 61.660194 0	0 0	0 0	0 0	0 0	0 0	0	
	0 0	0 0	0 0	0 0	0 0	0 0	0	
	0 0	0 0	0 0	0 0	0 0	0 0	0	
	0 0	0 0	0 0	0 0	0 0	0 0	0	
1991	1 5	0 0	17.97 0	0 0	0 0	0 0	0	0
	0 0	5.769231 9.202021	33.750067 46.010101	43.32427 58.124328	48.307573 43.980063	79.789828		

		0	27.306593	5.731481	5.731481	0	15.673469	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
1992	1	5	0	0	249.868	0	0	0	0	57.448721	
		176.465379	555.044924	679.8155	682.496865		596.829185		780.714735		
		529.549599	503.663751	295.236615	99.649403	129.227127		177.299372			
		58.866318	62.069737	70.536481	15.020164	6.961538	14.461538	6.961538	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
1993	1	5	0	0	146.61	0	0	0	0	0	13.477234
		36.736276	73.577552	79.192808	70.005012	66.162799	111.929037		327.779904		139.084215
		86.512829	31.826094	52.113691	5.616162	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
1994	1	5	0	0	182.286	0	0	0	11.141304	27.84619	29.099068
		103.777175	197.041855	346.007909		360.516803		314.157782			
		398.863659	364.078038	408.474339		236.289254		359.785115			
		159.917557	115.168451	58.564862	21.801111	20.111111	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
1995	1	5	0	0	96.78	0	0	0	0	7.68	13.88
		56.041667	60.323333	112.081667	281.668744		279.797857		421.692824		
		404.148721	428.122229	377.791066		348.366747		339.113769			
		112.732995	74.809516	126.780701	12.884211	52.669828	2.346939	0	0	0	
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
1996	1	5	0	0	131.204	0	0	0	0	45.857143	84.062857
		68.574929	251.630323	379.173798	477.618965		459.06708	501.780647			
		478.718823	388.259279	496.245166	494.646526		361.967866				
		323.868918	190.728976	117.457801	10.52381	55.449222	28.252336	0	0		
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
1997	1	5	0	0	123.516	0	0	0	0	0	1
		10	131	221	358	359	268	267	345	185	199
		49	18	2	25	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
1998	1	5	0	0	47.836	0	0	0	0.000	0.000	0.000
		6.909	20.000	10.000	23.855	138.492	190.691	385.066	397.390	82.753	53.969
		2.360	0.000	0.000	5.520	0.000	0.000	0.000	0.000	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
1999	1	5	0	0	32.042	0	0	0	0.000	0.000	3.983
		27.440	8.208	27.496	33.131	22.251	14.329	11.247	18.270	19.652	26.005
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
2001	1	5	0	0	8.45	0	0	0	1.387	1.387	0.000
		0.000	5.754	5.037	8.974	5.733	7.326	5.733	0.754	0.000	0.000
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
2003	1	5	0	0	2.276	0	0	0	0.000	0.000	0.000
		0.000	1.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0	0
		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
2004	1	5	0	0	29.834	0	0	0	0.000	10.250	37.350
		39.733	61.267	39.850	34.583	26.850	30.750	10.167	0.000	6.100	6.100



1994	1	6	0	0	249.58	0.000	0.000	0.000	0.000	0.000	0.000	10.455
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	58.932	157.765	198.098	343.086	465.128	471.821	681.149	812.397	904.115	863.386	692.537	
	494.980	443.115	359.383	444.154	90.914	82.388	2.920	2.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1995	1	6	0	0	168.79	0.000	0.000	0.000	0.000	0.000	0.000	4.967
	68.671	115.859	272.873	326.421	393.972	481.528	392.515	303.636	295.934	216.465	203.654	
	185.228	181.730	178.553	127.320	25.850	28.690	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1996	1	6	0	0	166.62	0.000	0.000	0.000	3.060	8.074	33.708	
	123.337	211.515	370.010	341.345	359.481	406.174	563.921	391.582	519.850	436.825	472.194	
	532.126	585.326	267.354	135.712	63.777	28.693	9.564	0.000	0.000	0.000	0.000	
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1997	1	6	0	0	109.25	0.000	0.000	0.000	0.000	3.961	19.800	
	13.860	26.849	77.854	160.787	226.902	320.700	322.333	208.149	207.819	103.785	83.153	
	60.349	81.996	84.766	50.031	19.091	2.191	1.600	0.000	0.000	0.000	0.000	
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1998	1	6	0	0	50.57	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	4.000	9.800	20.560	36.053	62.527	81.003	77.903	44.640	84.160	
	53.343	83.170	54.587	35.520	15.110	20.663	5.870	0.000	0.000	0.000	0.000	
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1999	1	6	0	0	143.70	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	4.708	26.667	36.282	57.677	116.000	144.400	144.248	121.300	77.040	28.400	15.760	
	9.540	7.340	3.000	1.200	1.000	1.000	1.000	0.000	0.000	0.000	0.000	
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2000	1	6	0	0	36.42	0.000	0.000	0.000	0.000	2.387	0.000	
	0.000	1.194	5.194	10.000	12.000	12.922	7.961	26.358	22.613	19.515	31.403	
	15.608	8.777	7.010	1.000	0.000	0.000	0.000	0.000	1.194	0.000	1.194	
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2001	1	6	0	0	54.08	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	1.000	5.260	7.520	23.560	20.891	16.111	14.800	23.847	35.369	48.937	
	36.639	28.111	20.240	6.714	4.160	5.610	2.900	0.000	0.000	0.000	0.000	
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2002	1	6	0	0	6.04	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	4.000	0.000	7.000	1.000	8.000	1.000	0.000	1.000	
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2003	1	6	0	0	13.55	0.000	0.000	0.000	0.000	1.983	1.983	
	0.000	0.000	1.983	12.387	12.387	11.898	17.821	8.983	1.983	3.966	1.983	
	0.000	1.983	0.000	1.983	1.983	1.983	0.000	0.000	0.000	0.000	0.000	
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2004	1	6	0	0	74.05	0.000	0.000	0.000	0.000	3.000	1.000	
	4.026	4.000	3.000	15.044	18.000	19.000	21.044	15.000	24.000	11.000	7.026	
	4.000	7.000	5.000	3.000	1.000	2.000	0.000	0.000	0.000	0.000	0.000	
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2005	1	6	0	0	46.39	0.000	0.000	0.000	3.000	4.000	1.000	
	2.000	8.000	9.000	12.000	14.000	18.000	16.000	12.000	7.000	5.000	5.000	



2000	7.140 0.000 1 0.000 3.041 0.000 14.923 1.067	4.268 5.234 7 2.000 1.996 0.000 12.090 0.000	17.289 5.234 3 3.018 1.067 0.000 12.086 0.000	15.186 0.000 0 14.935 2.015 0.000 7.100 0.000	27.351 5.234 48.29 0.000 0.000 0.000 7.243 0.000	17.902 5.234 0.000 11.623 0.000 0.000 5.097 0.000	21.329 0.000 0.000 7.067 0.000 0.000 2.067 0.000	13.621 0.000 0.000 14.001 1.000 0.000 1.091 1.996	4.314 0.000 0.000 16.039 0.000 1.022 0.000 0.000	6.252 0.000 0.000 12.023 0.000 4.861 0.000 0.000	2.277 0.000 0.000 9.145 0.000 5.962 0.000 0.000	
2001	1 0.000 8.662 0.000 10.417 2.157	7 1.000 2.448 0.000 9.221 1.157	3 6.073 2.102 0.000 5.840 0.000	0 7.251 3.568 0.000 9.948 0.000	0 12.512 1.075 0.000 7.481 0.000	0 14.331 0.000 5.997 10.801	0 22.977 0.000 10.801 2.232	0 10.404 0.000 2.250 0.000	0 16.677 0.000 2.250 0.000	0 11.022 0.000 4.253 0.000	0 6.537 0.000 9.126 0.000	
2002	1 0.000 29.200 0.000 0.000	7 0.000 315.887 0.000 4.867 0.000	3 0.000 335.354 0.000 9.733 0.000	0 0.000 29.200 0.000 14.600 0.000	0 0.000 24.333 0.000 4.867 0.000	0 0.000 160.377 0.000 150.643 0.000	0 0.000 150.643 0.000 19.467	0 0.000 0.000 4.867 14.600	0 0.000 0.000 4.867 4.867	0 0.000 0.000 0.000 0.000	0 0.000 0.000 0.000 0.000	
2003	1 0.000 510.037 0.000 0.000	7 0.000 382.528 0.000 0.000	3 0.000 254.764 0.000 127.509 0.000	0 0.000 255.019 0.000 127.509 0.000	0 0.000 127.509 0.000 382.528 0.000	0 0.000 0.000 0.000 255.019	0 0.000 0.000 0.000 0.000	0 0.000 0.000 0.000 0.000	0 0.000 0.000 0.000 0.000	0 0.000 0.000 0.000 0.000	0 0.000 0.000 0.000 0.000	
2004	1 0.000 315.757 0.000 0.000	7 0.000 151.569 0.000 87.304 0.000	3 0.000 263.139 0.000 0.000 145.602	0 0.000 286.665 0.000 43.508 0.000	0 0.000 238.217 0.000 141.063 0.000	0 0.000 80.723 0.000 153.324 0.000	0 0.000 0.000 0.000 119.694	0 0.000 0.000 0.000 41.753	0 0.000 0.000 0.000 34.031	0 0.000 0.000 0.000 38.970	0 0.000 0.000 0.000 0.000	
2005	1 0.000 44.969 0.000 0.000	7 0.000 51.359 0.000 0.000	3 0.000 66.273 0.000 0.000 0.000	0 0.000 0.000 0.000 0.000	0 0.000 0.000 0.000 0.000	0 0.000 59.647 0.000 0.000	0 0.000 0.000 0.000 0.000	0 0.000 0.000 0.000 79.051	0 0.000 0.000 0.000 0.000	0 0.000 0.000 0.000 0.000	0 0.000 0.000 0.000 0.000	
2006	1 0.000 583.655 0.000 0.000	7 0.000 25.560 0.000 0.000	3 0.000 76.681 0.000 0.000 0.000	0 0.000 626.256 0.000 0.000	0 0.000 8.520 0.000 0.000	0 0.000 25.560 0.000 17.040	0 0.000 8.520 0.000 17.040	0 0.000 0.000 0.000 42.601	0 0.000 0.000 0.000 34.081	0 0.000 0.000 0.000 0.000	0 0.000 0.000 0.000 0.000	
2007	1 0.000 0.000 0.000 0.000	7 0.000 0.000 108.510 0.000 0.000	3 0.000 0.000 5.342 0.000 0.000	0 0.000 0.000 0.000 0.000	0 0.000 0.000 0.000 0.000	0 0.000 5.342 0.000 0.000	0 0.000 0.000 0.000 9.975	0 0.000 0.000 0.000 0.000	0 0.000 0.000 0.000 0.000	0 0.000 0.000 0.000 0.000	0 0.000 0.000 0.000 0.000	
# 2009 California South recreational fleet (n=28)												
1980	1 29 0 0 0 0	8 53 1 0 0 0	0 64 0 0 0 0	0 78 0 0 0 0	0 69 0 0 0 0	206.624 76 0 0 0 0	0 76 0 0 0 0	0 56 0 0 0 0	1 45 0 0 0 0	6 19 1 0 0 0	12 9 0 0 0 0	23 4 1 0 0 0
1981	1 15 5 0 0 0	8 14 3 0 0 0	0 37 4 0 0 0	0 26 1 0 0 0	0 37 1 0 0 0	101.602 25 26 0 0 0	0 25 0 0 0	0 26 0 0 0	0 10 0 0 0	1 5 0 0 0 0	5 6 0 0 0 0	7 1 0 0 0 0
1982	1 17 4 0 0 0	8 32 5 0 0 0	0 25 3 1 0 0	0 33 1 0 0 0	0 28 0 1 0 0	124.432 27 20 0 0 0	0 27 0 1 0	0 20 0 0 0	0 16 0 0 0	1 19 0 0 0	3 14 0 0 0 0	9 6 0 0 0 0
	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0

1983	1	8	0	0	121.948	0	0	1	5	7	19
	13	23	27	29	29	28	21	16	15	3	2
	2	3	1	2	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1984	1	8	0	0	147.918	0	0	0	6	27	32
	38	32	27	23	35	30	31	13	7	2	3
	2	2	0	1	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1985	1	8	0	0	273.806	0	0	0	4	22	47
	66	107	91	84	67	63	64	36	12	12	4
	1	3	2	1	1	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1986	1	8	0	0	254.808	0	1	1	2	4	19
	50	78	105	145	119	80	59	21	10	3	5
	3	3	3	4	1	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1987	1	8	0	0	68.528	0	0	1	2	2	10
	9	8	10	23	17	25	17	2	4	2	3
	8	3	2	1	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1988	1	8	0	0	100.082	0	0	1	1	2	15
	25	19	26	22	15	9	14	17	7	2	1
	0	3	1	0	2	1	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	8	0	0	189.31	0	0	1	2	14	12
	14	59	82	106	53	46	40	28	12	4	9
	2	1	1	6	1	1	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1993	1	8	0	0	143.672	1	0	1	3	8	14
	34	36	50	38	20	11	2	2	1	3	0
	0	1	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1994	1	8	0	0	74.662	0	0	0	0	3	3
	4	9	11	19	12	12	7	1	0	0	0
	0	0	0	1	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1995	1	8	0	0	113.674	0	0	1	2	7	12
	28	17	37	41	34	28	28	16	4	1	2
	0	0	0	0	1	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1996	1	8	0	0	237.978	0	1	1	6	17	29
	27	37	61	100	137	104	76	31	8	7	2
	1	1	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1997	1	8	0	0	318.288	0	0	0	7	16	29
	33	74	94	136	209	198	180	94	39	27	10
	8	3	2	1	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	6	20
1998	1	8	0	0	219.938	0	0	0	49	22
	37	32	38	60	74	79	83	54	22	12
	7	4	12	3	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
1999	1	8	0	0	238.562	0	0	0	2	2
	12	21	53	72	90	83	101	87	65	23
	7	2	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2000	1	8	0	0	102.814	0	0	0	1	0
	6	8	15	30	50	53	34	38	32	14
	7	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2001	1	8	0	0	75.942	0	0	0	1	2
	1	4	4	8	20	23	34	25	9	15
	1	1	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2002	1	8	0	0	54.214	1	0	0	0	2
	3	4	9	1	3	12	14	17	16	4
	3	2	2	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2003	1	8	0	0	12.518	0	0	0	1	0
	0	0	3	2	0	1	0	1	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	8	0	0	136.874	0	0	0	5	0
	5	7	20	32	30	26	14	2	4	2
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2005	1	8	0	0	169.672	0	0	0	1	1
	16	31	30	44	38	38	19	9	1	0
	3	1	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2006	1	8	0	0	243.858	0	0	0	0	5
	15	47	61	65	52	46	61	25	2	1
	0	0	1	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2007	1	8	0	0	139.636	0	0	0	1	2
	9	18	39	25	47	28	16	3	11	4
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2008	1	8	0	0	69.248	0	0	0	0	0
	3	6	10	15	27	9	11	2	1	1
	4	0	0	1	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2009	1	8	0	0	49.04	0	0	0	0	2
	2	2	5	4	14	17	15	8	2	0

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	8	0	0	54.488	0	0	0	0	3	5
	2	2	17	18	1	9	5	5	2	0	0
	0	0	0	0	0	0	0	0	0	0	1
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	# 2009 California North recreational fleet (n=28)										
1980	1	9	0	0	108.368	0	0	0	0	1	3
	9	18	35	50	47	37	22	20	19	25	9
	16	6	10	4	2	0	0	0	0	1	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1981	1	9	0	0	76.464	6	2	2	2	1	3
	3	13	17	29	39	40	25	15	9	6	3
	3	1	2	0	3	0	0	0	0	0	1
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1982	1	9	0	0	118.854	0	0	0	0	0	12
	11	37	46	67	57	47	38	25	16	9	4
	3	3	0	2	0	4	0	2	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1983	1	9	0	0	77.186	0	0	0	1	0	2
	4	23	24	33	31	20	18	16	7	6	3
	1	1	1	1	2	1	1	1	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1984	1	9	0	0	105.396	0	0	0	0	1	6
	12	19	19	31	31	21	21	24	13	18	7
	7	3	6	1	2	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1985	1	9	0	0	163.616	0	0	0	0	5	6
	12	31	45	43	61	58	50	37	28	17	13
	4	7	3	8	2	0	1	0	1	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1986	1	9	0	0	199.598	0	0	1	0	1	12
	30	59	97	100	116	74	53	33	18	21	14
	11	9	9	7	2	2	0	1	0	1	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1987	1	9	0	0	134.034	0	0	0	0	1	7
	13	17	29	35	30	41	47	42	24	24	42
	45	28	13	9	6	13	2	0	1	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1988	1	9	0	0	93.67	0	0	0	0	2	2
	7	17	22	32	16	21	11	10	10	8	13
	17	7	8	8	0	0	0	1	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	9	0	0	30.316	0	0	1	0	1	1
	2	4	7	11	17	15	5	8	1	5	0
	0	2	1	0	0	1	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	3	3	10	
1993	1	9	0	0	138.68	0	0	14	7	10	4
	22	46	62	62	51	39	15				
	0	1	1	1	1	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1994	1	9	0	0	146.788	0	0	0	0	3	10
	23	47	52	95	73	50	23	22	5	3	0
	0	0	0	0	0	1	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1995	1	9	0	0	88.844	0	0	0	0	9	15
	25	40	31	36	32	21	10	4	3	1	0
	1	0	1	1	1	0	0	0	1	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1996	1	9	0	0	163.724	0	0	0	0	7	9
	22	45	62	92	70	34	38	15	9	17	16
	20	7	2	2	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1997	1	9	0	0	137.144	0	0	1	2	9	15
	57	59	42	40	23	25	43	51	61	43	46
	27	13	14	6	6	1	1	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1998	1	9	0	0	49.286	0	0	0	0	2	0
	2	6	4	20	17	13	15	23	14	7	7
	7	4	3	1	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1999	1	9	0	0	118.922	0	0	0	0	0	4
	10	17	23	33	29	16	32	34	51	44	24
	13	8	6	2	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2000	1	9	0	0	48.49	0	0	0	0	0	1
	0	3	5	16	4	1	4	10	8	12	11
	6	3	7	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	9	0	0	19.726	0	0	0	0	0	0
	0	0	2	0	2	2	3	2	6	2	1
	0	1	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2002	1	9	0	0	14.622	0	0	0	0	0	1
	2	1	0	0	3	2	3	1	0	1	1
	1	1	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	9	0	0	38.728	0	0	0	0	0	0
	1	0	3	4	2	2	9	10	4	2	3
	0	0	0	0	0	0	1	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	9	0	0	85.904	0	0	0	0	0	3
	1	2	9	12	12	3	5	2	5	3	1

	0	0	2	0	0	1	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	9	0	0	121.012	0	0	0	0	0	0
	5	14	16	24	24	23	26	6	4	2	5
	1	4	1	2	2	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	9	0	0	148.74	0	0	0	0	0	1
	3	9	17	36	47	35	19	8	7	5	6
	4	4	1	0	0	1	0	0	0	1	1
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	9	0	0	93.804	0	0	0	0	0	0
	3	7	15	16	31	20	15	12	8	1	1
	3	3	4	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	9	0	0	36.452	0	0	0	0	0	1
	0	3	6	3	10	10	5	4	1	2	1
	2	0	3	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	9	0	0	67.904	0	0	0	0	0	0
	0	4	8	16	21	19	15	6	4	0	3
	1	1	1	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	9	0	0	20.174	0	0	0	0	0	0
	2	1	3	1	5	2	4	1	1	1	1
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
# 2009 OR-WA recreational fleet (n=28)											
1980	1	10	0	0	130.916	0	0	0	0	0	206
	288	602	1938	5195	2930	4003	3711	1967	1202	2485	490
	349	1776	189	40	0	0	0	0	0	0	123
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1981	1	10	0	0	51.594	0	0	0	0	0	0
	3076	2180	7125	8165	6364	5457	6445	6549	1603	2453	1370
	1084	286	0	0	863	286	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1982	1	10	0	0	137.156	0	0	0	0	145	373
	0	2119	2602	4991	6504	6203	7768	4497	780	417	780
	1560	1560	0	0	0	0	0	145	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1983	1	10	0	0	53.488	0	0	0	0	0	465
	0	0	612	1369	2496	659	97	194	97	612	0
	0	0	0	0	0	0	148	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1984	1	10	0	0	146.438	0	0	0	0	0	328
	939	2252	2488	4478	3865	4435	3050	2954	1361	803	501
	194	350	58	58	238	56	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	56	0	1235	
	1	10	0	0	167.646	0	0	0	0	0	0
	2502	3877	6214	3731	6299	8722	8702	7143	4474	4362	2151
	4276	577	3218	170	790	0	57	790	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1986	1	10	0	0	75.356	0	0	0	0	100	0
	1430	1383	2455	2533	2185	1615	975	1013	215	535	1646
	1826	375	1032	250	125	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1987	1	10	0	0	113.88	0	0	0	276	788	924
	3486	3680	5645	3905	4017	4191	2118	1927	1410	747	980
	523	1018	402	591	424	0	0	0	0	0	193
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1988	1	10	0	0	165.924	469	0	0	469	483	2323
	5248	8847	11118	16528	9744	10868	5300	3722	1122	843	284
	642	534	0	0	341	36	469	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	10	0	0	84.048	0	0	0	0	0	225
	552	2884	3947	7619	4511	4672	2794	1937	705	765	297
	0	255	0	180	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1993	1	10	0	0	235.146	0	0	0	0	0	120
	1162	1917	3543	5078	5012	3199	2905	2095	757	420	669
	314	368	65	216	113	0	0	42	71	0	85
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1994	1	10	0	0	223.702	0	0	0	0	219	502
	1032	2089	2701	4214	3901	3303	2236	1129	401	243	92
	202	121	140	0	49	0	0	0	0	0	69
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1995	1	10	0	0	198.32	0	0	0	0	0	0
	315	1807	2623	6054	3758	2826	1604	894	245	337	0
	229	0	229	115	0	73	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1996	1	10	0	0	130.852	0	0	0	0	0	234
	89	859	2578	3175	2387	3089	1239	1216	217	144	79
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1997	1	10	0	0	313.182	0	0	0	37	0	524
	916	2648	3312	3818	4749	4141	3576	1577	173	1194	324
	273	543	285	33	0	76	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1998	1	10	0	0	315.746	0	0	0	0	76	793
	2192	5171	10638	7279	8882	6772	3595	3835	2547	732	397
	254	353	162	0	0	162	0	0	0	76	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1999	1	10	0	0	292.676	0	0	0	0	0	274
	1216	3411	5086	5675	5117	5451	2574	2355	1065	839	470

	389	258	70	65	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2000	1	10	0	0	161.268	0	0	0	0	0	140
	786	2055	2833	4281	4218	2817	1187	372	276	259	226
	0	212	18	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	10	0	0	107.324	0	0	0	0	0	1360
	115	231	1099	1182	1793	993	2745	317	237	17	17
	23	236	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2002	1	10	0	0	91.632	0	0	0	0	0	0
	292	220	775	1099	2417	2047	449	523	445	111	66
	226	23	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	10	0	0	20.968	0	0	0	0	0	0
	0	37	147	135	93	176	64	61	4	2	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	10	0	0	45.072	0	0	0	0	0	0
	0	14	7	19	12	0	26	6	6	7	0
	21	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	10	0	0	114.594	0	0	0	0	0	0
	0	0	17	0	0	9	32	15	24	0	0
	8	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	10	0	0	34.244	0	0	0	0	0	0
	0	0	3	9	0	3	6	3	3	3	3
	0	0	3	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	10	0	0	60.728	0	0	0	0	0	3
	0	5	0	7	27	5	27	12	0	0	7
	14	0	0	0	5	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	10	0	0	59.694	0	0	0	0	0	0
	0	4	0	9	12	4	0	4	12	0	0
	0	0	4	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	10	0	0	62.694	0	0	0	0	0	0
	0	0	0	4	4	22	25	29	4	11	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
# 2010	1	10	0	0	64.694	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

## # 2009 At-sea hake fishery (n=8)

2003	1	11	3	0	96.55	0	0	0	0	0	0
	0	0	0	0	0	0	2	3	0	16.111111	29.51634
	32.738562	20.26634	33.710784	20.873483	14.301587	9.151261	5.722222	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	2.6	14.643791	24.322222	49.410458	52.599673	48.207143	28.317927	13.857143	3
	4.634921	0	0	0	0	0					
2004	1	11	3	0	118.47	0	0	0	0	0	0
	0	0	0	0	0	0	0	3.5	0	32.728571	
	136.17437	135.745798		150.712465		223.222549		133.012465		24.95	
	112.702941	0	6.25	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	3.5	9.571429	17.828571	
	133.931513		77.771429	144.62437	15.85	9.25	8.6	0	0	3	0
	0	0									
2005	1	11	3	0	202.4	0	0	0	0	0	0
	0	0	0	0	0	0	1.75	5	11.5	27.277778	
	55.72	55.8	51.67	63.882222	33.888889	22.97	27.498889	10.826667	4.333333	0	2
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	1	14.5	48.586667	90.476667	55.525556	32.386667	18.36	9.493333
	2	2.333333	0	0	0	1					
2006	1	11	3	0	182.29	0	0	0	0	0	3
	2	0	0	1	0	3	4	8	9	21	33.095238
	43.5	38.833333	40.095238	28.333333	27.3	15.428571	11	4	0	0	0
	0	0	0	0	0	0	0	2	0	3	1
	3	11.8	3	4	22.633333	53.8	48.345238	46.761905	20.8	5.833333	2
	0	0	0	0	0						
2007	1	11	3	0	260.72	0	0	0	0	0	0
	0	2.2	0	6.6	0	1.833333	9.666667	22.914787	34.407644	45.785965	
	68.555013	80.901116	99.077056	45.254762	48.647619	52.935965	25.964286	20.364719	0	0	0
	0	0	0	0	0	0	0	0	2	2.2	6.2
	6.619048	3.809524	9.359524	19.571679	62.355263	87.979073	111.800684		34.281385	17.485965	16.45
	0	2.25	0	0	0	0	0				
2008	1	11	3	0	243.67	0	0	0	0	0	0
	0	0	0	0	8.5	0	5.9	5.9	6.4	12.333333	32.329469
	44.932925	58.090574	41.54071	81.634804	85.330859	74.025614	28.506803	19.666667	13.5	2	0
	0	0	0	0	0	0	0	0	0	3.833333	
	0	4	7.9	10.073913	17.356463	37.847732	70.180519	65.647066	59.151545	20.059215	15.186667
	0	0	0	0	0	2					
2009	1	11	3	0	152.47	0	0	0	0	0	0
	0	0	0	0	0	0	0	2	10.166667	70.238095	
	57.071429	129.984524		153.859524		130.417857		140.442857		45.475	36.1
	11.5	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	5	12.8	13.666667		
	112.517857		83.046429	59.371429	0	8.341667	9	0	0	0	0
	0										
2010	1	11	3	0	141.52	0	0	0	0	0	0
	0	0	0	0	0	0	0	2	2	6.538462	29.975962
	19.475962	39.975962	30.038462	35.705128	28.916667	31.75	27.9375	6.666667	6.4375	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	6.538462	33.975962	51.951923	58.951923	60.291667	33.663462	25.375	6.833333
	4	1	0	0	2	2					

## # 2011 NWFSC survey (n=8)

2003	1	12	3	0	79.61	0	44826	59768	75454	0	44108
	25955	14562	55788	14562	16294	16335	73767	77071	171841	133675	91294
	140749	122148	135561	115897	28364	215365	4550	0	0	0	0
	25736	179303	228422	34178	0	57216	40558	14562	40600	0	0
	26983	103833	55412	185165	201620	243358	259818	158344	112437	4818	0
	0	0	0	0	0	0					
2004	1	12	3	0	70.74	0	10557	10557	60840	42228	54303
	39726	13242	60949	164065	91708	129306	152789	210391	240754	436458	391257
	174882	252665	195185	466997	408304	343507	290182	157496	39374	39374	0
	0	21114	12244	0	70228	8637	116495	79454	44913	89745	118154
	163850	278933	60253	162161	249829	285836	423252	445253	799448	268261	140608
	129657	0	39374	0	0	0					
2005	1	12	3	0	90.38	11604	30110	8973	7028	14056	49195
	7028	7028	7028	14056	25089	54232	144922	226795	223607	219676	168729
	343364.4705	363927	262829	193830	153203	0	0	9282	0	0	0
	0	23208	11604	14056	7028	21084	28112	20370	14056	7028	20001
	56003	85342	188564	183711	202661	273409	395608	565053.5295	658264	227012	
	57996	36276	18138	0	0	0	0	0			

2006	1	12	3	0	75.61	0	9256	9256	9256	8621	7697
	0	0	11422	53421.5	49009	65725	56121	134157	295661	1306098	1390397
1913744	3732031	3622889	2763348	1555589	2250090	1279241	971683	8888	0	0	
	0	0	0	0	8224	26884	7697	7697	0	4412.5	78979
42775	37284	871544	756833	1864268	2490314	3935794	5996239	4811381	1962030	769947	
	0	307558	0	0	0	0					
2007	1	12	3	0	95.11	0	0	0	32767.00024		24576
	62520	55905	203678	112772	106352	63229	92026	99786	42907	14007	106282
65867	303592	182580	314848	296942	189478	83952	41866	40511	0	0	
	0	0	0	0	0.999755919		0	62521	78887	228402	72796
95731	108618	66088	63924	97831	47650	231109	428611	760736	391891	388516	
	52870	19644	16122	8685	0	7220	0	0			
2008	1	12	3	0	91.93	72570.96918		142928.7893		97196.25383	
	378630.0682	303211	0	16434	8213	88286	84715	132467	185419	169540	
237181	182302	182065	300446	180027	232308	145166	280937	237387	51170	40513	
	20111	18583	0	0	504460.0308		331896.2107		62846.74617		
191494.9318	301572	27565	21738	31671	52319	166141	127559	196385	383617		
	317466	344443	261496	284198	261155	92487	67446	91350	46791	0	8844
	0	0	0	0							
2009	1	12	3	0	54.56	7938	4280	13012	27254.73469		
	27051.12499	0.99976641	0	35120	17787	62347	45603	243399	139740		
116990	99410	36965	26873	44453	27801	37587	87461	54269	18965	9816	
	0	0	0	0	4280	12840	82284.26531		64033.87501		
24910.00023	8106	25578	34240	72028	185870	207729	138863	159634	116943		
	90397	124126	106697	65070	74915	8185	0	0	0	0	
	0	0	0	0	0						
2010	1	12	3	0	85.65	268972.5	25951.5	108022	7727	40315	60450
	25907	0	0	18038	9464	45231	109474	151727	118170	53800	111861
101213	269285	647507	847532	987134	410900	136421	85784	0	0	0	
	276688.5	41394.5	167828	24079	60450	83494	23044	0	0	16840	17147
43820	136956	147337	132629	211814	300043	381255	822168	697151	282289	102076	
	0	0	0	0	0						
# Triennial survey (n=10)											
1983	1	13	3	0	215.16	0	0	3578	3578	13121	14688
	22563	113129	317694	562889	275905	287613	220792	246952	334313	233752	335422
699948	484401	391119	537382	545882	236888	73064	37180	1813	0	0	
	0	0	0	8946	14313	9641	27423	143716	326252	499398	389346
261883	212402	244898	267583	293468	542581	850132	1241293	789315	540169	155779	
	55125	11196	0	0	0						
1986	1	13	3	0	215.16	0	3015	1386	2202	20059	7538
	10696	19221	19347	40982	71310	84335	84117	166954	274047	301968	277293
192250	201573	219700	195734	141261	154333	78156	30502	8970	0	0	
	0	0	7148	10128	22063	19363	14420	112850	51652	52758	87857
96422	164530	167154	335559	336212	284279	344089	370193	307445	312377	125384	
	24739	8430	5836	0	0						
1989	1	13	3	0	175.77	5678	22712	73814	23116	15040	5678
	20314	69517	56203	107797	103159	75084	94889	94610	142711	162765	102671
161590	133711	343786	305478	190954	173833	54169	94060	77410	0	0	
	22712	0	68136	63175	19125	25160	22807	68265	81616	114142	104050
81889	127530	137864	221340	196940	221243	304104	560162	523668	512477	86396	
	31795	26226	75161	0	0						
1992	1	13	3	0	62.49	34885	10902	10966	20773	19820	14781
	30338	38288	31921	40398	42616	51985	106892	101108	107399	146992	69708
21254	11877	20135	19809	17140	14090	1234	12073	11881	0	0	
	34885	13301	25589	50418	28793	22995	16755	9768	11997	34329	26400
18422	100552	90942	82939	52979	41260	25057	28979	21189	31815	7830	
	1479	0	0	0	0						
1995	1	17	3	0	84.12	0	0	0	2425	6219	
	9051	7444	34124	65169	84732	83277	68180	27715	41353	47699	28838
40874	34870	54909	56214	71852	39778	40100	32907	6853	0	0	
	0	0	0	0	13408	28080	35758	58054	137785	144116	
78322	72250	69039	25359	47640	47653	100883	120910	187447	124051	34202	
	0	0	0	0	0						
1998	1	17	3	0	113.54	0	196	22571	196	1570	11689
	9864	7606	4191	21373	16103	40348	59768	79399	82635	70273	52250
34294	35430	43633	18110	10390	7156	701	2824	0	0	0	
	0	3982	7963	4963	1177	8729	11097	2159	1766	10547	24342
65749	61566	76257	65988	50491	93704	68243	41814	33539	7181	6747	
	2105	0	0	0	0						

2001	1	17	3	0	100.86	0	0	3606	0	32110	0
	67475	3520	7040	77336	44391	205336	414378	293143	161288	96909	54077
	79501	72585	72892	23599	7090	16502	0	0	0	0	0
	0	0	0	0	22492	0	22492	35200	26012	74040	83963
	262245	311511	186368	156321	90186	65787	79815	40142	36151	13856	3684
	0	0	0	0	0	0	0	0	0	0	0
2004	1	17	3	0	90.84	0	0	4597	0	4040	0
	0	0	0	0	0	0	10782	35686	91136	56932	36869
	60475	55129	84106	59555	94921	41846	22135	0	0	0	0
	0	0	4040	0	0	0	0	0	6603	0	0
	11675	21407	32063	64495	59598	171145	144096	170212	166250	86653	47887
	4230	0	0	0	0	0	0	0	0	0	0

### Age data ###

35 # Number of age bins for data inputs

# Lower edge of age bins (first is a minus group, last is a plus group)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

2 # Number of ageing error types

# Vectors of: Average age at true age (to accumulator age)

# SD of ageing precision at true age

# definition 1 CAP/NWFSC/ODFW

0.5	1.418732	2.33746	3.2562	4.17493	5.09366	6.01239	6.93113	7.84986	8.76859	9.68732	10.6061
	11.5248	12.4435	13.3623	14.281	15.1997	16.1184	17.0372	17.9559	18.8746	19.7933	20.712
	21.6307	22.5494	23.4681	24.3868	25.3055	26.2242	27.1429	28.0616	28.9803	29.899	30.8177
	31.7364	32.6551	33.5738	34.4925	35.4112	36.3299	37.2486				
0.0976918	0.0976918	0.195384	0.293075	0.390767	0.488459	0.586151	0.683843	0.781535	0.879226	0.976918	1.07461
	1.1723	1.26999	1.36769	1.46538	1.56307	1.66076	1.75845	1.85614	1.95384	2.0515278	2.1492196
	2.2469114	2.3446032	2.442295	2.5399868	2.6376786	2.7353704	2.8330622	2.930754	3.0284458	3.1261376	3.2238294
	3.3215212	3.419213	3.5169048	3.6145966	3.7122884	3.8099802	3.907672				

# definition 2 WDFW

0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5
	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5	20.5	21.5	22.5
	23.5	24.5	25.5	26.5	27.5	28.5	29.5	30.5	31.5	32.5	33.5
	34.5	35.5	36.5	37.5	38.5	39.5	40.5				
0.112926	0.112926	0.225851	0.338777	0.451702	0.564628	0.677553	0.790479	0.903404	1.01633	1.12926	1.24218
	1.35511	1.46803	1.58096	1.69388	1.80681	1.91973	2.03266	2.14559	2.25851	2.371446	2.484372
	2.597298	2.710224	2.82315	2.936076	3.049002	3.161928	3.274854	3.38778	3.500706	3.613632	3.726558
	3.839484	3.95241	4.065336	4.178262	4.291188	4.404114	4.51704				

### Age composition data ###

675 # Number of age comp observations using restricted length ranges

2 # Length bin refers to: 1=population length bin indices; 2=data length bin indices; 3= actual pop? data? lengths match bins?

0 #\_combine males into females at or below this bin number

# Conditional ages for surveys, marginal for fishing fleets

# Year Season Type Gender Partition ageerr Lbin\_lo Lbin\_hi Nsamps Data: females then males

# 2011 Southern California trawl fleet age error key 1, unchanged from 2007 (n=9)

1981	1	1	3	0	1	-1	-1	4.83	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1000.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	500.000	500.000	500.000	0.000	500.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1983	1	1	3	0	1	-1	-1	3.55	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	500.000	0.000	0.000	500.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	500.000	500.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

	1	1	3	0	1	-1	-1	18.69	0.000	0.000	0.000
1984	123.718	96.225	94.482	0.000	280.996	500.000	1000.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	13.746	123.718	68.732	96.225	0.000	513.746	1500.000	0.000	0.000	500.000
	0.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	500.000	1000.000	1000.000	0.000	0.000	0.000	0.000	0.000
	0.000 #										
1985	1	1	3	0	1	-1	-1	18.97	0.000	0.000	0.000
	0.000	0.000	364.773	2026.000	1982.173	890.773	559.273	242.250	182.800	182.800	0.000
	0.000	0.000	0.000	0.000	364.773	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	2000.000	26.000	742.250	91.400	716.667	91.400
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	364.773	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	364.773 #										
2002	1	1	3	0	1	-1	-1	1.83	0.000	0.000	0.000
	0.000	0.000	0.000	1.000	2.000	0.000	1.000	1.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000 #										
2003	1	1	2	0	1	-1	-1	1.28	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000 #										
2004	1	1	2	0	1	-1	-1	1.14	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000 #										
2005	1	1	3	0	1	-1	-1	3.55	0.000	0.000	1.000
	0.000	0.000	0.000	0.000	0.000	1.000	0.000	1.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2007	1	1	3	0	1	-1	-1	4.898	0	0	0
	0	3.5384615	0.8846154	1.7692308	0.8846154	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	4.4230769	5.3076923	0.8846154	0	377.5	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
#	2011 (n=12)	Northern	California	trawl	fleet	age	key	1,	unchanged from	2007	
1981	1	2	3	0	1	-1	-1	64.39	0	0	0
	0	171.871	155.052	143.855	552.491	960.329	1078.854	476.593	252.977	1164.645	612.456
	614.869	571.3	520.123	14.04	124.939	44.745	329.82	465.292	0	71.3	0
	11.489	49.48	0	0	135.129	0	0	0	0	0	0
	0	0	0	37.002	252.396	64.149	1172.284	1017.173	370.414	604.302	357.478
	930.652	604.664	724.354	427.77	0	12.17	0	60.526	404.792	0	71.3
	0	0	37.489	0	0	0	0	0	15.023	0	0
	26.776										
1982	1	2	3	0	1	-1	-1	79.98	0	0	0
	0	0	455.671	505.739	809.562	534.882	1664.928	1515.326	1705.311	157.233	895.207
	551.145	0	381.29	441.215	11.588	0	15.135	0	429.253	0	0
	0	0	0	0	0	0	0	0	0	0	0

	439.254	0	0	30.154	974.703	137.143	1009.961	1363.132	2457.232	1390.602	821.069
	257.505	147.106	380.196	762.581	221.857	468.665	49.057	887.256	167.18	572.83	721.857
	0	0	0	221.857	0	0	0	0	500	0	0
	221.857										
1983	1	2	3	0	1	-1	-1	167.1	0	0	0
	5.747	93.377	219.512	952.225	2093.845	2071.412	562.523	1666.687	225.84	1206.857	921.75
	1972.97	464.367	655.391	211.598	193.744	8.84	457.666	0	859.848	283.133	769.938
	0	0	54.392	250.705	0	205.045	0	359.848	0	364.923	0
	0	0	0	303.942	103.889	1867.813	1936.779	2824.357	1371.667	4971.029	1015.804
	905.464	531.908	749.27	1574.26	1477.369	37.216	596.812	902.296	820.007	27.843	564.893
	127.532	323.87	359.848	0	52.019	62.04	0	0	500	0	205.045
	1400.464										
1984	1	2	3	0	1	-1	-1	109.4	0	0	0
	0	0	1163.744	740.745	1490.822	1832.411	1163.223	1672.036	1004.852	398.358	1296.562
	399.151	1603.336	137.387	106.831	80.773	201.809	68.85	0	147.961	154.25	0
	235.778	0	199.282	525.262	0	24.386	0	0	229.966	476.896	0
	0	0	0	56.725	169.882	567.39	1413.331	878.886	1800.631	1602.013	1773.945
	77.472	0	972.6	305.052	414.354	426.362	10.9	143.35	0	334.353	432.588
	0	500.51	504.399	0	142.608	376.596	10.9	166.157	293.26	146.63	158.861
	540.507										
1985	1	2	3	0	1	-1	-1	112.37	0	0	0
	0	78.393	208.954	1380.992	1828.328	2118.386	888.288	2023.116	1224.364	815.748	139.485
	190.525	1057.559	633.697	302.63	1089.635	434.647	1384.695	108.774	325.874	293.774	434.647
	347.121	288.03	0	190.525	186.804	0	0	0	2.386	576.061	0
	0	0	0	24.733	117.263	1527.011	918.644	3339.029	2520.794	2081.283	1501.902
	1062.287	599.978	139.485	415.724	769.725	453.161	0	16.76	340.399	347.121	470.495
	1107.642	951.585	190.525	614.351	105.98	0	884.767	0	0	0	44.225
	299.298										
1987	1	2	2	0	1	-1	-1	1.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	2	3	0	1	-1	-1	4.86	0	0	0
	0	0	0	1.818	1.818	1.818	5.455	5.455	5.455	3.636	3.636
	1.818	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1.818	3.636	0	5.455	3.636
	5.455	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2002	1	2	3	0	1	-1	-1	14.52	0	0	0
	0	0	0	0	4.495	7.773	3.795	18.61	8.061	4.495	0
	3.495	0	1.378	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	6.448	7.606	7.931	4.031	10.479	10.463	8.984
	7.485	1	1.3	0	1	0	1.3	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	1.378										
2003	1	2	3	0	1	-1	-1	8.66	0	0	0
	0	0	0	1	5	10	1	3	4	4	2
	1	1	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1	1	4	0	1
	2	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	2	3	0	1	-1	-1	9.93	0	0	0
	1	5	5	16.6	3	0	1	0	16.6	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	3	0	18.6	3	16.6	3	0	15.6
	0	2	1	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	2	2	0	1	-1	-1	2.69	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	1	0	0	0	1	0	0
	2	1	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2009	1	2	3	0	1	-1	-1	5.898	0	0	0
	0	0	0	0	8.578947	2.789474	0	0	0	2.789474	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	5.578947	5.578947	13.947368	2.789474	3	8.368421	
	0	2.789474	0	2.789474	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
#	2011	Oregon	trawl	fleet	with	age	error	key	1	(n=30)	
1980	1	3	3	0	1	-1	-1	56.48	0	0	0
	0	0	0	19.05	35.52	32.94	16.47	246.15	295.52	515.24	496.79
	351.5	783.85	869.63	199.17	604.65	544.89	222.54	521.91	517.59	163.83	0
	83.9	63.46	65.89	63.46	130.89	0	0	0	0	0	0
	0	0	0	0	9.53	16.47	576.13	101.56	108.51	379.03	929.28
	317.98	717.08	549.37	620.61	1542.47	567	1651.31	1082.51	537.62	326.8	1143.93
	678.94	621.85	318.04	273.26	32.94	351.55	256.79	348.56	145.58	415.01	25.81
	795.78										
1981	1	3	3	0	1	-1	-1	10.28	0	0	0
	0	0	0	230.6	0	0	1588.75	982.3	606.45	606.45	
	375.85	230.6	375.85	606.45	0	0	922.4	461.2	0	230.6	230.6
	0	0	0	0	0	0	0	0	0	230.6	0
	0	0	0	0	0	0	0	0	837.05	230.6	606.45
	230.6	982.3	461.2	375.85	1127.55	837.05	375.85	375.85	0	1503.4	982.3
	375.85	230.6	0	0	0	0	0	375.85	0	230.6	0
	375.85										
1983	1	3	3	0	1	-1	-1	204.74	0	0	0
	0	213.85	243.32	1067.23	2195.06	2894.85	3879.9	3054.13	2751.51	3001.94	2812.47
	2441.26	1118.25	575.7	963.69	1087.08	899.33	856.22	698.73	708.53	758.73	356.84
	246.49	188.01	229.87	208.72	40.59	8.66	151.48	110.21	137.31	313.64	0
	0	0	0	58.21	412.78	1536.55	3802.6	4895.68	4690.51	2230.23	2085.7
	2325.31	2980.21	1874.6	1216.73	1364.16	1401.06	1057.61	1990.86	1478.44	1755.86	1479.07
	1160.92	826.63	755.42	839.71	536.18	1019.78	705.68	949.37	605.53	501.43	355.5
	3867.99										
1984	1	3	3	0	1	-1	-1	134.14	0	0	0
	21.34	44.67	297.88	678.21	1051.87	1813.32	2405.42	2707.95	1561.48	989.46	1656.51
	1000.46	680.96	312.68	509.46	396.11	273.4	934.27	404.89	651.02	449.53	245.7
	196.46	186.68	228.52	94.46	211.96	0	115.79	58.37	132.08	108.46	0
	0	0	13.58	32.34	487.31	970.32	1686.67	3250.02	3101.09	2451.24	1624.48
	1503.43	1119.42	1687.9	1367.79	737.54	395.19	588.85	807.48	1235.68	1265.38	992.92
	799.76	1025.54	621.04	756.9	528.96	266.94	512.33	270.61	586.62	459.05	607.24
	3300.09										
1985	1	3	3	0	1	-1	-1	169.44	0	0	0
	0	0	347.4	892.9	1054.64	2274.97	2811.71	2492.57	1614.09	1467.35	962.32
	886.83	871.8	773.2	457.97	189.74	195.55	220.49	464.78	503.64	277.28	328.44
	0	67.79	0	192.89	18.73	7.33	54.49	0	59.69	221.41	0
	0	0	0	68.94	283.65	1450.61	2293.48	3475.91	2941.36	2071.01	1565.44
	1053.33	744.22	924.04	781.65	491.77	421.4	324.54	104.04	527.74	461.53	333.2
	269.89	489.42	290.3	361.34	424.52	365.72	485.23	131.69	120.15	108.18	191.72
	2552.09										
1986	1	3	3	0	1	-1	-1	112.96	0	0	0
	0	115.75	332.04	597.07	533.66	538.7	895.69	911.89	1072.01	578.14	259.14
	433.14	227.18	329	75.73	50.59	77	0	197.54	175.05	46.17	53.45
	119.85	0	0	2.64	59.48	0	82.17	0	0	169.04	0
	0	0	46.99	173.73	276.85	553.37	1198.85	979.17	1180.24	760.34	789.55
	226.57	309.14	88.05	86.1	166.57	90.36	117.36	54.94	33.67	103.98	359.56
	71.87	252.85	98.8	0	87.7	165.19	46.68	25.33	99.53	22.69	53.45
	398.3										
1987	1	3	3	0	1	-1	-1	204.74	0	0	0
	0	37.21	212.34	794.35	2129.22	2945.26	2629.97	3209.99	4059.39	3070.66	1858.35
	587.41	550.7	370	633.2	613.02	261.54	231.17	335.65	82.74	163.21	538.77
	155.12	114.89	187.71	75.32	59.43	0	66.38	0	4.95	9.9	0
	0	0	0	32.66	355.17	822.27	4310.45	5579.25	4110.6	5705.4	2803.37
	1591.15	1049.07	760.37	397.08	120.89	463.18	671.68	0	100.18	215.33	233.51

	313.26	349.13	311.5	440.98	143.06	20.59	190.19	4.95	55.77	2	1
	1089.11										
1988	1	3	3	0	1	-1	-1	70.6	0	0	0
	0	0	68.9	213.76	358.77	1394.78	1091.61	900.07	1821.75	978.38	658
	377.13	334.92	265.26	83.34	57.36	97.7	96.64	57.36	163.84	327.67	0
	92.53	0	92.53	0	0	27.3	0	0	0	0	0
	0	0	0	19.99	65.67	267.61	664.41	1172.29	779.35	799.97	636.23
	669.43	297.71	123.03	0	142.61	171.08	128.67	0	0	147.14	163.84
	39.27	0	194.33	0	0	92.53	105.85	0	27.3	142.61	39.27
	336.42										
1989	1	3	3	0	1	-1	-1	155.32	0	0	0
	4.27	6.55	125.42	370.49	689.64	1617.32	2116.64	2477.78	1813.23	1254.55	1170.62
	1021.98	664.86	435.97	210.8	488.26	329.02	95.27	196.23	33.37	14.1	298.77
	0	0	0	80.03	95.51	45.84	151.76	95.27	79.26	64.36	0
	0	0	0	6.55	176.48	623.92	1093.26	1468.3	2833.55	1901.38	1531.16
	1438.69	769.44	487.09	410.98	153.26	573.08	217.81	378.43	248.76	80.74	203.56
	329.98	198.67	299.45	292.12	491.06	194.78	194.48	207.19	60.82	171.09	77.45
	1127.34										
1990	1	3	3	0	1	-1	-1	141.2	0	0	0
	0	4.49	194.63	434.19	568.09	1310.92	1546.2	2061.42	1920.85	1431.23	1780.18
	852.48	696.77	409.35	372	158.55	172.78	131.11	86.6	85.9	0	14.44
	78.01	0	0	0	102.7	0	0	66.36	0	117.17	0
	0	0	0	52.45	69.36	567.73	810.15	1521.39	1745.46	2078.78	1963.51
	1355.73	826.72	597.59	281.34	374.28	118.84	336.56	184.54	97.36	103.99	54.48
	153.53	18.47	21.99	61.4	100.21	174.77	13.95	4.54	34.06	17.1	8.73
	600.63										
1991	1	3	3	0	1	-1	-1	139.3	0	0	0
	14.43	263.33	511.35	1217.2	2454.17	2885.91	2056.63	3004.19	3368.6	2137.68	1340.45
	1143.29	776.91	418.42	605.16	204.88	46.75	260.47	187.14	63.21	0	42.28
	0	118.37	4.6	0	0	0	0	0	0	43.94	0
	0	0	43.28	163.89	558.29	1522.27	3025.42	4076.05	3925.59	2995.57	1915.95
	1143.95	1348.41	1143.72	270.69	350.63	493.29	230.77	736.93	0	227.31	299.15
	544.6	69.57	8.18	315.45	81.47	167.86	335.9	142.56	501.44	75.22	58.86
	705.99										
1992	1	3	3	0	1	-1	-1	208.64	0	0	0
	2.55	413.58	463.3	2033.28	3041.33	4515.75	4390.17	3976.01	2159.07	4030.45	2278.95
	2040.72	1200.88	1617.42	500.68	514.04	404.87	327.69	179.64	219.02	256.07	0
	113.53	0	52.63	0	167.59	47.19	79.24	0	0	52.63	0
	0	0	0	282.33	1623.17	3676.17	3970.48	6987.89	4881.46	3766.99	3041.58
	2820.58	1956.42	1137.78	1303.64	402.65	875.22	547.43	337.7	605.52	409.48	647.44
	169.96	313.25	374.95	196.26	48.76	539.12	676	297.76	15.98	291.15	11.4
	2649.2										
1993	1	3	3	0	1	-1	-1	155.32	0	0	0
	0	29.85	634.34	1569.56	3019.89	3095.63	2703.16	4714.31	3855.04	2706.53	3081.15
	1376.19	1544.73	1587.66	821.81	812.34	353.07	493.51	278.48	184.19	24.11	42.75
	216.37	168.79	20.85	0	24.13	44.98	0	0	0	0	0
	0	0	1.94	115.11	612.23	1868.88	4720.11	4477.75	4165.49	2607.38	1789.61
	1274.51	1721.1	870.31	1341.18	611.38	553.96	253.86	439.53	391.98	522.45	747.37
	248.36	230.17	12.42	7.63	129.57	75.44	80.14	108.24	143.66	0	150.52
	244.2										
1994	1	3	3	0	1	-1	-1	28.24	0	0	0
	0	5.89	86.45	83.34	70.57	290.96	344.15	264.6	219.41	58.78	108.56
	71.55	90.05	105.93	5.89	34.38	71.55	71.55	71.55	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	5.89	0	36.19	95.96	463.38	481.89	571.58	114.94	89.91
	409.98	204.51	239.04	18.51	267.53	71.55	71.55	0	71.55	0	0
	18.51	71.55	71.55	18.51	0	71.55	0	143.09	105.93	0	71.55
	148.99										
1995	1	3	3	0	1	-1	-1	98.84	0	0	0
	0	35.25	183.29	375.95	427.26	706.13	929.99	823.84	385.01	304.66	228.74
	24.7	126.23	25.38	57.4	25.38	32.44	0	0	34.04	0	5.24
	28.29	25.38	0	0	0	25.38	0	0	0	0	0
	0	0	0	99.97	442.74	665.36	834.07	722.72	679.62	714.8	248.22
	197.24	82.33	84.22	49.86	89.39	117.58	74.94	0	75.2	0	4
	2.02	14.47	5.24	5.24	0	0	0	0	7.26	2.02	0
	45.53										
1996	1	3	3	0	1	-1	-1	127.08	0	0	0
	3.36	160.51	534.04	791.92	863.43	832.35	633.67	891.68	889.35	343.43	275.18
	198.46	248.04	224.59	156.89	57.34	65.77	0	38.78	0	0	10.22
	0	0	0	0	0	0	0	0	0	49.84	0

	0	0	3.04	185.66	429.31	829.92	1018.71	779.63	986.75	858.1	656.72
	337.01	155.98	244.5	159.71	277.98	11.14	144.71	129.01	72.46	298.68	83.19
	18.24	38.78	33.34	0	90.68	94.5	0	33.34	0	101.43	33.34
	336.67										
1997	1	3	3	0	1	-1	-1	197.68	0	0	0
	0	51.59	64.83	349.07	818.04	1736.64	1421.12	1485.09	1605.77	1205.97	869.35
	354.36	225.61	90.33	108.79	172.03	63.49	67.89	61.87	72.27	1.25	20.93
	0	1.25	55.88	0	0	0	0	27.9	0	25.3	0
	0	0	20.88	4.09	308.4	1099.7	1660.68	2509.52	2396.53	1987.46	1923.81
	912.12	395.82	374.02	207.74	146.71	40.69	122.27	55.51	73.22	32.75	60.9
	119.25	0	26.97	0	9.55	74.45	62.76	0	0	12.32	30.84
	254.48										
1998	1	3	3	0	1	-1	-1	197.68	0	0	0
	2.07	36	327.77	792.85	1678.77	1731.38	1655.66	1395.26	1091.29	854.64	706.85
	481.61	383.38	207.73	278.32	152.15	126.02	73.71	60.84	51.47	5.78	5.78
	18.27	42.7	0	5.78	0	0	0	10.56	0	18.6	0
	0	4.14	0	89.44	393.44	1072.2	1778.63	1994.73	1877.68	1679.61	1226.51
	976.08	669.63	458.28	355.6	207.04	218.68	223.54	111.14	37.93	87.07	205.03
	99.25	92.03	27.04	12.9	48.02	25.69	26.45	20.94	46.42	20.94	43.88
	574										
1999	1	3	3	0	1	-1	-1	197.68	0	0	0
	9	88.84	188.82	727.04	1194.62	921.11	1389.45	1378.86	1329.71	1244.84	867.28
	582.05	613.98	402.39	151.59	158.48	127.16	115.89	64.67	8.7	30.25	0
	67.94	0	9.93	0	0	0	33.71	2.14	0	0	0
	0	0	27	107.78	231.3	603.84	1435.07	1332.68	1234.18	1425.47	1110.01
	700.26	1107.75	448.5	433.63	184.38	169.78	176.09	239.13	156.69	50.48	116.86
	84.61	43.37	92.91	0	0	82.37	33.71	0	0	0	3.46
	219.35										
2000	1	3	3	0	1	-1	-1	83.62	0	0	0
	4.67	23.7	22.43	30.52	37.79	47.37	44.8	34.34	23.33	19.55	7.48
	11.21	1.51	2.15	3.54	2.22	1.95	1.11	1.15	1	0	0
	1	0	0	0	0	0	0	0	0	0	0
	0	0	1.98	17.89	37.86	49.57	56.73	47.62	45.69	30.95	31.99
	15.84	12.61	3.9	6.1	3.71	1.11	2.43	2.27	1.04	0	0
	2.15	0	2.12	0	0	0	0	0	0	0	0
	0										
2001	1	3	3	0	1	-1	-1	125.29	0	0	0
	0	4.1	38.58	84.08	84.15	71.38	53.93	36.72	27.53	46.64	21.51
	8.27	7.05	11.18	2.5	2.1	3.2	4.64	3.61	1.03	2.38	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	1.12	8.53	32.21	77.64	67.76	109.39	64.38	63.92	35.59
	28.76	14.27	13.55	9.58	2.22	6.62	0.97	7.72	0	2.97	0
	0	1.42	1.84	2.84	0	0	0.84	1.22	0	2.64	1.42
	4.88										
2002	1	3	3	0	1	-1	-1	178.93	0	0	0
	0	16.71	37.41	99.06	185.37	88.18	55.67	53.49	55.52	42.61	40.62
	34.03	21.3	28.36	7.04	25.29	11.22	11.8	5.08	4.95	0	5.1
	0	0	0	0	0	1.12	0	1	1.12	2.25	0
	0	0	1	22.67	49.03	123.32	146.9	70.71	87.49	62.46	64.63
	45.97	25.83	34.91	3.12	19.96	10.62	10.75	6.27	7.46	8.29	4.11
	1	1	1.25	0	0	0	0	0	3.11	1.01	1.01
	15.43										
2003	1	3	3	0	1	-1	-1	71.36	0	0	0
	0	5.6	17.43	53.6	151.65	136.21	102.06	83.91	43.98	121.1	56.27
	34.54	0	57.05	4.97	5.85	43.27	0	0	0	0	3.97
	0	0	3.97	0	0	0	0	0	0	0	0
	0	0	5.83	5.6	28.7	113.66	150.22	46.81	121.04	89.61	56.13
	54.9	42.05	29.75	14.27	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	5.85										
2004	1	3	3	0	1	-1	-1	121.27	0	0	0
	52.03	42.14	80.95	642.46	514.63	289.82	165.7	267.37	348.35	115.6	76.53
	50.32	15.41	52.56	7.94	55.59	0	0	0	0	24.42	0
	0	12.78	0	0	0	24.42	0	24.42	0	21.95	0
	0	0	43.91	201.19	261.67	423.86	309.45	342.23	230.96	66.43	77.79
	37.44	72.67	42.6	53.33	55.48	35.36	0	0	35.36	11.63	0
	12.78	12.78	0	0	0	0	0	16.88	12.78	0	0
	24.95										
2005	1	3	3	0	1	-1	-1	156.83	0	0	22.54
	499.53	454.46	97.75	200.21	315.66	192.28	853.61	964.5	683.5	183.04	173.87

	124.78	59.88	136.15	119.21	25.68	43.61	22.12	8.13	0	4.39	0
	0	0	0	0	0	0	0	0	0	0	0
	22.54	386.85	841.31	72.32	149.34	609.89	219.59	426.67	799.94	700.6	248.48
	45.82	255.43	39.16	101.72	75.73	53.87	0	10.66	75.58	0	45.07
	0	51.66	0	0	4.76	0	0	5.84	0	0	0
	19.4										
2006	1	3	3	0	1	-1	-1	79.4	0	0	0
	10.35	10.03	20.71	49.06	64.87	39.61	74.88	88.58	67.97	20.91	26.92
	36.46	34.12	32.74	0	0	16.65	0	0	0	5.55	0
	14.91	5.43	0	0	5.55	5.41	0	0	0	0	0
	0	0	10.89	5.52	10.64	32.56	42.16	97.16	95.76	77.14	65.55
	10.68	35.09	32.85	24.61	21.97	32.76	22.1	11.32	27.72	16.28	16.08
	5.54	5.54	5.52	0	5.52	0	0	0	0	0	0
	31.97										
2007	1	3	3	0	1	-1	-1	52.77	0	0	0
	0	0	0	23.06	45.16	39.76	53.27	21.34	28.17	16.92	22.41
	22.35	16.53	17.42	31.33	11.05	4.63	6	0	5.69	10.86	10.44
	0	0	0	0	0	0	0	0	0	4.44	0
	0	0	0	4.43	5.96	11.72	20.49	28.12	11.76	34.47	17.55
	34.26	5.5	0	5.76	5.69	6.03	5.58	0	0	6.03	5.76
	0	0	5.29	0	0	0	0	0	0	0	0
	0										
2008	1	3	3	0	1	-1	-1	68.84	0	0	0
	7.32	51.21	18.17	3.66	6.54	9.06	18.54	22.03	12.94	13.08	32.24
	26.38	16.25	10.68	13.76	14.16	3.75	11.09	6.7	10.53	6.92	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	51.21	25.63	13.24	3.66	65.96	36.9	33.99	26.86
	14.73	26	11.05	2.43	0	3.77	0	3.42	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	3.77										
2009	1	3	3	0	1	-1	-1	146.792	0	0	0
	2.0925553	9.3681847	14.4932452	9.1132713	15.5692952	9.1132713	15.5692952	17.0331179	25.3384784		
	16.7870823	19.03439	36.4969433	18.6281219	18.6281219	18.6281219	18.6281219	17.2906985	19.5992313		
	12.3118978	7.2343818	4.204539	4.1559596	12.9444367	7.2343818	4.204539	4.1559596	3.0075738	2.9488291	2.0379242
	3.61912370	0	1.3105802	0	0	0	0	0	0	0	0
	0	0	2.0925553	7.1790007	15.9310813	2.0925553	7.1790007	15.9310813	30.1996987	20.9865393	
	25.0714211	25.7447506	23.9571792	21.2769225	21.2769225	21.2769225	21.2769225	18.4151556			
	12.3757234	17.1426863	6.879579	8.2673854	8.2573631	8.7647022	8.7647022	7.7486083	4.9317406	3.2783221	
	5.34048980	0	1.9608086	3.5289641	4.0958998	1.06453770	1.06453770	6.5645377	1.0379242	0.99173550	
	0	3.3049157									
2010	1	3	3	0	1	-1	-1	77.23	0	0	0
	0	2.4705882	10.6386995	13.9228992	13.9228992	11.4753185	11.4753185	10.5993598			
	12.9548041	11.6713378	10.3070547	21.10332	13.9532251	21.10332	13.9532251	15.7292023			
	13.2454596	9.0060009	8.7772302	3.946545	4.5370505	7.4931692	5.3676939	2.06284750	0		
	1.01522840	0	0	0	1	0	0	0	0	0	0
	0	0	0	4.9411765	7.4117647	13.8261929	11.8715767	11.8715767	28.0410943		
	34.7698006	10.5543718	23.4121578	13.5892115	13.5892115	13.5892115	13.5892115	18.0260708			
	13.5292808	9.00029482	5.9821816	5.5024839	8.1016557	2.0232929	3.4863548	3.0659241	1.034749		
	1.0311751	1.455898	1.03117510	0	0	0	0	0	0	0	0.7014306
#	2011	Washington	trawl	fleet	with	age	error	key	2	(n=27)	
1980	1	4	3	0	2	-1	-1	63.54	0	0	0
	197.856	593.568	396.629	1782.537	2489.546	2108.809	1338.983	1203.147	1742.406	979.166	523.004
	349.047	550.754	313.489	140.015	158.685	1.833	19.765	40.447	93.676	93.676	0
	0	0	0.917	0	0	0	0	0.917	0.917	34.681	0
	0	0	0	407.868	2179.166	2375.189	2605.64	2680.213	1307.968	680.679	1099.193
	923.254	969.905	424.226	461.088	208.162	339.534	672.852	262.307	529.635	263.6	23.08
	138.003	24.312	45.244	0	0	0	0	0	0	0	0
	21.852										
1981	1	4	3	0	2	-1	-1	105.9	0	0	0
	0	128.193	9.959	10.724	12.287	122.478	74.761	594.275	195.686	45.926	170.838
	119.875	134.728	18.468	86.509	5.229	42.607	45.413	3.074	42.659	41.096	0
	1.512	0	1.211	0	0	0	2.506	0	0	0	0
	0	0	0	25.279	6.387	14.254	61.684	155.147	78.437	71.992	121.15
	131.121	127.297	157.244	139.759	235.427	52.422	47.504	323.773	6.14	190.745	46.19
	2.506	2.423	2.723	4.017	5.363	812.664	50.744	0	140.832	4.824	45.92
	375.698										
1983	1	4	3	0	2	-1	-1	56.48	0	0	0
	0	47.393	204.351	116.651	376.633	543.503	647.165	786.236	513.667	313.955	571.866
	612.908	372.35	456.148	305.658	144.816	98.026	13.324	114.722	51.957	0	60.237
	0	3.242	0	0	0	0	0	0	0	0	0

	0	0	0	47.357	348.393	116.006	602.288	716.108	737.761	708.251	301.112
	626.935	366.265	263.968	243.317	297.65	34.542	193.193	58.379	11.017	13.485	110.841
	76.964	9.635	6.484	53.907	63.479	7.062	56.995	6.423	3.242	53.248	8.791
	250.507										
1984	1	4	3	0	2	-1	-1	35.3	0	0	0
	0	0	1.763	2.545	2.818	4.64	6.184	10.739	10.565	3.864	4.321
	5.228	6.569	2.269	4.346	1.86	0.626	0.723	1.096	1.86	2.955	0.764
	1.096	1.096	1.428	0.332	0.764	0.332	0	0	0.764	1.29	0
	0	0	0	0.295	2.738	3.719	4.725	5.817	9.012	9.617	10.829
	6.161	8.972	5.959	5.091	4.767	5.779	3.15	0.589	2.449	1.253	1.45
	1.979	3.629	3.407	1.338	0	1.86	1.51	0.764	1.018	1.096	2.586
	16.689										
1985	1	4	3	0	2	-1	-1	77.66	0	0	0
	0	24.966	77.114	160.98	525.73	876.991	1055.242	1039.556	1143.94	971.531	679.445
	808.435	415.751	872.222	841.102	443.115	255.738	34.561	286.07	30.222	181.618	95.63
	0	27.688	190.57	23.349	93.582	13.594	3.407	3.407	23.349	108.796	0
	0	0	0	13.746	31.687	298.628	568.105	874.201	911.162	1282.77	1454.375
	914.483	478.458	1288.801	346.835	694.629	319.681	341.64	582.884	97.176	74.795	237.387
	282.908	273.95	119.666	167.058	225.247	128.492	162.235	155.68	76.885	148.458	51.446
	1783.508										
1986	1	4	3	0	2	-1	-1	120.02	0	0	0
	0	18.529	408.778	806.492	1723.598	1383.059	2148.497	1304.307	1014.918	822.288	325.707
	449.712	90.307	74.703	18.4	17.6	0	26.342	120.097	39.983	0	13.617
	32.008	0	0	74.703	25.212	0	0	0	98.591	215.059	0
	0	0	36.8	183.963	399.326	1417.868	2273.825	1973.574	2032.468	1279.494	1012.664
	517.203	231.766	387.022	330.388	56.983	85.667	214.376	85.947	98.591	236.679	15.508
	29.126	135.406	0	30.599	39.983	236.995	112.24	0	0	98.591	39.983
	528.395										
1987	1	4	3	0	2	-1	-1	35.3	0	0	0
	0	9.514	14.482	232.047	591.465	1198.636	464.937	1283.877	566.967	258.992	248.608
	132.23	4.968	117.748	87.805	8.7	31.07	14.482	82.837	0	4.968	0
	0	0	0	0	4.968	8.7	0	0	0	4.968	0
	0	0	0	9.514	28.543	330.994	1014.186	928.203	835.81	766.291	422.688
	207.915	107.677	227.922	96.506	8.7	8.7	9.514	121.481	0	0	121.481
	82.837	92.773	4.968	0	0	0	0	4.968	112.78	0	
	241.169										
1988	1	4	3	0	2	-1	-1	116.84	0	0	0
	3.46	54.692	144.477	114.149	628.071	1233.436	1497.347	3014.89	1784.404	1085.264	1188.129
	1026.811	643.289	495.689	405.392	297.493	143.862	226.799	0	155.249	0	7.193
	9.395	125.072	0	125.072	0	0	0	18.149	0	0	0
	0	0	0	112.942	180.53	392.496	666.557	769.119	1432.41	2562.971	909.355
	1497.354	816.099	754.66	130.905	858.614	601.765	174.833	335.49	550.31	200.236	167.64
	7.193	101.727	24.992	116.112	162.441	0.918	27.544	9.395	71.329	12.392	0
	1575.847										
1989	1	4	3	0	2	-1	-1	55.05	0	0	0
	6.23	1244.059	293.912	594.113	1103.508	552.055	68.305	645.017	651.91	106.366	1413.011
	68.305	50.847	44.284	523.088	38.363	0	15.275	31.508	8.42	0	0
	0	4.671	0	0	0	0	14.668	0	0	0	0
	0	0	0	949.548	222.815	65.124	891.13	391.225	165.293	619.173	474.863
	90.786	1231.735	27.759	29.943	462.358	4.671	500	514.668	284.773	0	4.671
	0	10.603	499.729	0	13.091	25.271	437.087	14.668	0	0	0
	25.254										
1990	1	4	3	0	2	-1	-1	59.99	0	0	0
	0	144.113	37.798	44.916	231.478	154.412	938.048	233.747	1191.783	728.206	190.805
	586.219	526.559	128.421	512.798	531.691	21.448	12.798	20.486	0	0	11.206
	0	0	0	0	0	0	10.243	0	0	98.687	0
	0	500	0	17.728	22.16	156.157	1265.852	835.947	1222.395	742.329	166.946
	778.705	203.822	621.793	45.518	21.763	515.419	0	0	1.343	80.598	1.343
	59.149	0	10.243	0	0	11.52	20.486	10.243	500	10.243	10.243
	262.278										
1991	1	4	3	0	2	-1	-1	141.2	0	0	0
	0	0	108.733	427.936	1266.002	1556.286	2991.128	4253.078	2618.288	2117.95	2867.729
	992.425	750.62	1218.003	1015.89	525.707	1002.853	488.385	324.756	376.611	139.321	95.622
	3.321	45.588	4.992	142.128	0	0	0	0	0	3.321	0
	0	0	0	61.924	1472.776	1957.819	3038.192	3808.162	4293.543	3812.485	
	3256.649	2156.356	1559.364	2307.786	741.689	1013.608	109.686	710.021	423.87	364.805	895.027
	260.072	230.59	0	184.908	100.503	184.908	45.588	796.244	274.587	517.603	189.141
	2787.822										
1992	1	4	3	0	2	-1	-1	71.62	0	0	0
	19.331	222.05	230.699	271.872	523.226	304.573	868.709	845.847	1132.027	409.754	745.978

		710.722	119.446	264.023	50.24	35.236	50.24	50.24	4.371	50.24	0	0
		0	0	240.214	0	0	50.24	0	0	0	50.24	0
		0	0	24.121	261.448	258.702	371.445	725.46	1340.597	1389.456	1428.147	231.265
		908.499	615.515	613.302	248.579	603.836	173.861	240.214	4.371	468.045	328.311	227.831
		500	55.827	554.611	12.383	50.24	29.649	378.551	0	50.24	0	505.902
		1358.979										
1993	1	4	3	0	2	-1	-1	106.84	0	0	0	0
	30.452	79.111	458.197	306.947	674.386	637.764	652.093	546.905	554.96	197.263	64.93	
	274.84	211.131	216.108	218.352	262.574	0	23.146	307.598	0	0	12.594	
	94.817	23.146	189.635	94.817	0	0	0	94.817	0	202.921	0	
	0	0	33.759	236.664	221.391	659.123	777.382	2306.465	476.4	564.54	421.125	
	350.784	320.239	84.014	182.213	84.285	160.702	24.32	94.817	0	11.419	23.146	
	94.817	94.817	133.274	0	94.817	0	0	0	0	0	23.146	
	288.293											
1996	1	4	3	0	2	-1	-1	9.45	0	0	0	0
	0	0	78.838	0	7.353	11.029	7.353	7.353	3.676	3.676	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	37.581	0	37.581	3.676	0	22.059	22.059	7.353	3.676	
	0	0	0	0	3.676	0	0	0	0	0	0	
	0	0	0	0	0	3.676	0	0	0	0	0	
	0											
1998	1	4	3	0	2	-1	-1	16.83	0	0	0	0
	0	0	89.681	8.74	543.005	555.416	6.555	0	48.861	502.185	2.185	
	0	0	0	0	2.185	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	2.185	2.185	10.925	160.503	149.578	89.681	4.37	6.555	0	
	72.44	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	344.046											
1999	1	4	3	0	2	-1	-1	2.41	0	0	0	0
	0	0	0	0	0	0	0	0	0	500	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	112.96	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	500	0	0	0	0	0	0	0	0	
	0											
2000	1	4	3	0	2	-1	-1	3.69	0	0	0	0
	0	0	0	0	0	0	0	7.992	7.992	0	103.473	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	7.992	
	0	0	0	0	0	0	15.755	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0											
2001	1	4	3	0	2	-1	-1	4.97	0	0	0	0
	0	0	0	12.403	0	153.281	62.996	0	0	0	0	22.657
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	153.281	0
	12.403	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0											
2002	1	4	3	0	2	-1	-1	21.55	0	0	0	0
	0	0	0	0	0	82.917	24.553	31.157	37.535	22.82	24.553	
	82.917	38.171	51.169	44.858	0	40.42	0	100.692	0	0	0	
	0	0	38.929	0	0	0	0	0	0	0	0	
	0	0	0	0	0	22.634	22.634	0	0	0	0	
	29.787	42.327	60.168	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	82.917											
2003	1	4	3	0	2	-1	-1	12.79	0	0	0	0
	0	0	0	25.889	0	20.796	0	0	0	0	7.824	
	25.362	0	15.598	0	42.394	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	2.288	10.184	7.323	0	0	0	0	0	0	0	0	
	0	12.238	0	0	0	0	0	0	0	0	0	
	0											

	1	4	3	0	2	-1	-1	16.86	0	0	0
	0	20.645	0	0	18.285	36.549	31.851	0	96.72	0	0
	0.773	0	25.23	0	0	7.273	0	1.8	0	0	0
	0	0	0	0	0	0	0	0	0	0.773	0
	0	0	0	0	0.769	33.758	35.78	58.815	18.787	0	0
	0	0	0	0	0.773	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	34.531										
2004	1	4	3	0	2	-1	-1	111.69	0	0	0
	0	8.754	15.213	35.013	42.591	52.945	37.835	35.07	25.698	18.751	
	16.92	6.73	3.471	12.262	6.775	5.295	4.681	5.422	0	1.013	3.331
	4.37	1.043	2.374	0	0	0	0.935	0	0	0	0
	0	0	0	1.36	6.366	18.74	62.162	30.532	38.227	32.048	26.756
	14.622	8.44	8.168	4.91	4.943	3.351	2.105	1.013	1.043	2.196	2.037
	3.366	0	1.024	0	0.777	0.777	2.748	0	1.132	1.132	0
	5.811										
2005	1	4	3	0	2	-1	-1	114.56	0	0	1.071
	3.108	11.058	35.018	40.37	36.314	24.766	48.765	13.782	19.815	16.105	12.37
	6.27	8.604	7.284	8.566	5.022	3.899	5.766	1.917	2.951	0	1.822
	1.386	2.516	0	0	0	0	0	0	0	0	0
	0	3.213	1.071	6.038	37.518	38.731	29.907	22.715	20.519	24.198	17.363
	21.211	18.255	13.095	7.319	10.967	2.89	1.614	4.215	3.669	1.386	5.061
	0	0.471	0.922	0	0.517	0	0	0	0	0	0
	2.833										
2006	1	4	3	0	2	-1	-1	121.72	0	0	0.849
	0.712	12.422	57.429	161.446	82.329	74.695	23.863	25.74	21.515	17.568	15.887
	9.899	15.65	13.21	8.275	6.959	5.617	2.974	1.95	2.73	2.612	2.741
	3.025	0.885	2.343	0.482	0.969	0	0	0	0	0.9	0
	0	0	2.82	28.603	86.629	73.077	54.512	64.508	22.209	29.878	26.507
	18.76	15.273	37.072	9.687	9.83	4.971	2.224	3.267	3.781	0	1.56
	2.84	0	0.855	0	0	0.885	1.205	1.06	0	0	0
	3.851										
2007	1	4	3	0	2	-1	-1	125.21	0	0	0
	0.712	12.422	57.429	161.446	82.329	74.695	23.863	25.74	21.515	17.568	15.887
	9.899	15.65	13.21	8.275	6.959	5.617	2.974	1.95	2.73	2.612	2.741
	3.025	0.885	2.343	0.482	0.969	0	0	0	0	0.9	0
	0	0	2.82	28.603	86.629	73.077	54.512	64.508	22.209	29.878	26.507
	18.76	15.273	37.072	9.687	9.83	4.971	2.224	3.267	3.781	0	1.56
	2.84	0	0.855	0	0	0.885	1.205	1.06	0	0	0
	10.583										
2008	1	4	3	0	2	-1	-1	132.46	0	0	0
	0	8.87	45.258	43.983	27.045	20.86	14.047	8.239	14.178	35.353	22.302
	24.574	19.293	16.264	21.913	9.505	14.943	7.928	7.884	7.774	0	6.385
	9.059	3.345	3.024	0	3.542	0.922	1.009	0.515	1	0	0
	0	0	0	14.755	36.442	29.746	41.165	21.458	21.685	30.579	46.311
	41.522	25.68	19.896	21.764	19.521	6.813	15.687	30.514	3.228	6.719	7.796
	2.361	0	0	2.959	1.11	0.515	0	0.98	0	0	3.077
	2.024113										
2009	1	4	3	0	2	-1	-1	132.46	0	0	0
	0	5.822206	6.268792	4.150923	2.592681	11.64788	5.969261	15.89173	27.7564	34.07335	29.80372
	36.1813	29.29693	24.88853	31.45937	28.4763	21.95581	11.67635	12.07496	15.65964	8.035462	4.963084
	1.740833	3.65026	2.715278	2.520414	0.8176005	2.709899	0	0	0	0	0
	0	0	0	3.75448	8.038945	13.79804	0	19.6097	17.03672	43.17959	29.13136
	16.98544	0	15.08734	23.2503	3.036659	10.11494	4.829712	3.200198	2.084193	1.960529	6.122958
	1.992012	0.8176005	0.9280946	0	0	1.266593	0.8176005	0.9121365	0	0.9574804	0
	6.5154762										
#		2009	OR-WA	non-trawl fleet,	unchanged from	2007	(n=7)				
1997	1	7	3	0	1	-1	-1	3.35	0	0	0
	0	0	1.004	0	0	0	0	0	2.008	0	
	0	0	0	0	0	1.004	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	1.004	2.008	1.004	0	5.021	2.008	2.008
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0										
1998	1	7	3	0	1	-1	-1	16.01	0	0	0
	0	0	4.245	8.489	15.88	19.375	4.245	5.941	9.088	0	0
	0	0	0	0	0	2.795	0	0	0	0	
	2.795	0	0	0	0	0	0	0	0	0	
	0	0	0	3.846	11.538	7.391	27.02	14.678	41.304	9.436	9.44

	11.237	30.813	6.293	2.795	13.333	2.795	0	2.795	0	9.788	8.384
	2.795	0	0	2.795	0	2.795	0	0	0	0	0
	2.795										
2001	1	7	3	0	1	-1	-1	10.38	0	0	0
	0	3.355	3.084	1.028	3.139	3.084	3.139	4.167	1.084	1.028	0
	1.028	1.084	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	2.393	1.143	0	4.223	3.139	2.111	1.028	0
	2.056	0	1.028	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2002	1	7	3	0	1	-1	-1	2.1	0	0	0
	0	0	0	1.034	0	0	1.034	0	0	1.034	0
	1.034	1.034	1.034	0	0	0	0	0	1.034	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	1.034	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2003	1	7	3	0	1	-1	-1	4.93	0	0	0
	0	0	0	0	1	0	0	0	4	2.998	1
	0	0	1	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	2	0	1	2	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2004	1	7	3	0	1	-1	-1	11.55	0	0	0
	0	109.346	0	0	0	0	207.528	141.69	231.099	87.017	251.058
	0	121.753	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	43.53	0	0	0	0	0
	0	0	0	0	0	91.842	54.673	43.53	98.182	0	110.61
	0	98.182	0	0	0	0	0	0	43.53	0	0
	0	0	0	0	0	43.53	0	0	0	0	0
	0										
2005	1	7	3	0	1	-1	-1	8.35	0	0	0
	0	0	0	0	0	7.778	4.278	1	0	0	4.278
	4.278	3.5	3.5	0	2.5	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	1	0	7.5	8.5
	0	0	0	0	0	0	0	0	0	0	0
	0	0	4.278	0	0	0	0	0	0	0	0
	0										
#	2009	At-sea	hake	fishery,	no	ages	read	from	2008	(n=7)	
2003	1	11	3	0	1	-1	-1	101.734	0	0	0
	0	0	0	7.5	10.166667	22.277778	15.333333	10.833333	30.668254	18.15909	42.35909
	25.834921	5.857143	5	0	3	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	2.333333	13.204545	26.054545	13.433333	35.741414	50.987878	18.961111
	25.557143	25.356133	6.555556	0	17.5	2.833333	3	3	2.5	0	0
	0	0	0	0	0	0	0	0	0	0	0
	12.992064										
2004	1	11	3	0	1	-1	-1	126.15	0	0	0
	0	0	0	2	10.892857	12.3	39.942857	358.259524		17.9	42.642857
	350.7	341.066667		337.4	48.716667	15.7	15.8	3	5.5	0	7.8
	0	7.8	7.8	0	0	0	0	0	3.6	0	0
	0	0	0	0	0	0	1	13.25	15.292857	37.442857	20.5
	26.742857	26.8	13.75	338.4	19.2	42.7	45.8	1	0	0	6
	0	0	0	0	0	0	0	0	7.8	0	0
	0	0	6								
2005	1	11	3	0	1	-1	-1	209.57	0	0	0
	0	0	2	5.416667	80.6	42.216667	37.75	45.333333	56.966666	41.033334	31.616666
	7.25	18.266667	17.2	2	2	2.666667	2	0	2	0	2.8
	5	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	5.333333	9	29.633333	35.966667	31.783334	32.55	29.166666
	34.65	12.333333	7.5	5.666667	2	4.5	2	0	3	3	4.8
	2	0	2.5	0	0	0	2	0	0	0	0
	1.5										
2006	1	11	3	0	1	-1	-1	193.878	0	0	2.8
	4	2.8	5	5	16.8	34.7	35	31.666667	24.666667	34.066667	23.5

		12.166667	22.833333	6.466667	6.75	2	7.7	5	2	10.666667	3.75	0
		0	0	0	0	0	0	0	0	0	0	0
		0	0	2	2.8	8.8	8	10.8	26.866667	35.033333	24.75	45.3
		18.666667	6	3.5	15	2	4	6	0	0	8.4	2
		0	1.75	0	0	0	0	0	0	0	0	0
		0										
2007	1	11	3	0	1	-1	-1	261.544	0	0	0	0
	2.2	6.6	0	6	46.633333	49.75	64.366667	63.683333	57.433333	36.866667	46.333333	
	34	25.833333	22	12	26.35	8.6	14.45	1	0	6.2	2	
	5	0	0	0	4	0	0	0	2.25	0	0	
	0	0	2	2.2	9.2	21.016667	30.6	50.733333	91.55	57.516667	39.433333	
	44.8	4.6	14.75	0	2.4	2.8	1.4	2	0	0	0	
	6	0	0	0	0	2	0	0	0	0	0	
	9.45											
2009	1	11	3	0	1	-1	-1	168.016	0	0	0	0
	0	0	0	0	42.333333	13.5	21.666667	13.5	53.333333	92.679825		
	101.666667	25.666667	24.013158	100.083333			23.539474	6	127.3	14.2	9.526316	
	46.359649	4.263158	43.333333	0	6.263158	2.5	1.5	2.263158	2.5	0	6	
	0	2.263158	12	9.666667	8	49.833333	9	40.333333	14.666667	17.789474	0	
	6	37.833333	3	5.526316	0	74.666667	0	0	0	0	2	
	0	2	0	0	0	0	7.429825	0	0	0	0	
	0	0	0	0								
2010	1	11	3	0	1	-1	-1	158.258	0	0	0	0
	0	0	0	0	3.733333	7.807843	27.47451	18	16.272727	26.82656	23.142424	
	12.272727	17.607843	4.2	19.30303	8.636364	13.436364	5.441176	5.5	5.866667	1.666667	5	
	6.5	19.166667	0	3.8	2	0	0	0	0	0	2	
	4	24.885383	43.282353	40.490196	19.00303	25.87754	15.00303	14.636364	15.713904	42.547237	0	
	2	6.133333	6	0	2	20.966667	1.636364	0	0	0	0	
	2	1.636364	1.666667	0	0	8.866667	0	0	0	0	0	
	0											
#	2010	NWFSC	survey	conditionals		(n=327)						
2003	1	12	1	0	1	2	2	1.07	0	34864	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
2003	1	12	1	0	1	3	3	1.14	0	69729	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
2003	1	12	1	0	1	4	4	2.28	0	45570	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
2003	1	12	1	0	1	6	6	3.21	0	0	64464	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
2003	1	12	1	0	1	7	7	2.14	0	0	26172	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	

	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	1	0	1	8	8	1.07	0	0	14779
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	1	0	1	9	9	3.21	0	0	0
	44421	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	1	0	1	10	10	1.07	0	0	0
	0	14779	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	1	0	1	13	13	2.14	0	0	0
	0	0	29310	27244	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	1	0	1	14	14	4.28	0	0	0
	0	6219	54488	0	0	0	0	0	4107	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	1	0	1	15	15	7.77	0	0	0
	0	0	54488	91084	62773	10194	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	1	0	1	16	16	6.49	0	0	0
	0	0	0	33463	5765	58620	18271	0	0	0	5386
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	1	0	1	17	17	6.56	0	0	0
	0	0	0	29310	29310	68406	29310	7287	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	1	0	1	18	18	9.91	0	0	0
	0	0	0	0	0	38589	18541	37506	10769	12322	13053
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2003	1	12	1	0	1	19	19	9.84	0	0	0
	0	0	0	0	4107	0	0	4515	42872	41368	12438
	0	0	5386	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	1	0	1	20	20	10.98	0	0	0
	0	0	0	0	0	0	0	35849	49091	31213	22515
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	1	0	1	21	21	9.77	0	0	0
	0	0	0	0	0	0	0	18580	6219	24328	0
	24799	5712	18580	0	38200	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	1	0	1	22	22	2.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	5712
	0	0	5712	0	0	0	0	18580	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	1	0	1	23	23	3.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	219981	0	18580	0	0	0	0	0	0	0
	6219	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	1	0	1	24	24	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	4550	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	1	1	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	25953
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	2	2	1.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	104593	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	3	3	4.77	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
313093	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	4	4	2.21	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
34178	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	6	6	3.28	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
13405	44463	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	7	7	3.21	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	40993	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	8	8	1.07	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	14779	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	9	9	2.21	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	41035	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	12	12	1.07	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	14118	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	13	13	7.49	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	82595	4107	29310	4107	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	14	14	7.56	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	8213	32250	4550	29310	5186	0	0	0
6219	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0

2003	1	12	2	0	1	15	15	10.91	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	11321	116109	7287	33612	27244	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	16	16	15.12	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	45648	28642	15384	56344	0	6219	12322
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	17	17	19.68	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	5006	27414	32495	69139	0	40458
	24170	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	18	18	19.75	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	4034	0	29705	21896	18658	46015
	71384	0	23130	5765	0	0	18580	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	19	19	16.26	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	10326	20110	22114	4550
	35065	15740	5765	5712	18580	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	5386	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	20	20	11.91	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	18034	18580
	19497	24345	22811	0	0	0	0	6449	0	5712	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2003	1	12	2	0	1	21	21	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	5386	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	2	2	1.07	0	10557	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	3	3	1.07	0	10557	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	4	4	3.21	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	5	5	1.28	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	6	6	3.28	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	9	9	2.21	0	0
	10557	69919	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	10	10	3.35	0	0
	0	152176	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	11	11	4.28	0	0
	23649	58608	9777	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	12	12	6.7	0	0
	23649	90668	23649	65415	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	13	13	4.7	0	0
	0	63087	0	128527	34959	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	14	14	5.42	0	0
	0	9860	33426	79696	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0

			0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	15	15	5.49	0	0	0
	0	0	8300	70938	31371	21232	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	16	16	7.63	0	0	0
	0	0	23649	39504	0	21232	213594	182695	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	17	17	9.77	0	0	0
	0	0	0	21232	30165	34939	221308	182695	0	0	0
	0	0	0	0	182695	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	18	18	4.35	0	0	0
	0	0	0	0	0	6900	6445	34603	0	0	28474
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	19	19	11.84	0	0	0
	0	0	0	0	0	16584	18838	28474	191739	35023	11535
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	20	20	8.7	0	0	0
	0	0	0	0	0	0	10139	71513	28474	38317	27133
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	21	21	9.63	0	0	0
	0	0	0	0	0	0	56948	0	0	8699	12516
	17664	0	0	182695	0	197260	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	22	22	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	14565
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	23	23	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	6900

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	24	24	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	182695	14565	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	1	0	1	25	25	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	182695	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	2	2	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	21114	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	3	3	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	12244	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	5	5	3.49	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	8722	61507	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	6	6	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	8637	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	7	7	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	45516	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	9	9	3.28	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	31671	34959	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

2004	1	12	2	0	1	10	10	3.42	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	10291	174797	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	11	11	5.42	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	20417	117217	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	12	12	5.63	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	9860	53228	44881	10139	0	0	182695	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	13	13	8.98	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	53228	88250	72868	14565	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	14	14	4.28	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	54679	0	6900	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	15	15	7.63	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	8933	24550	84927	6900	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	16	16	9.84	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	31155	70938	21232	205862	13555	0
	21232	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	17	17	9.63	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	9067	23649	8933	35374	41067	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	18	18	10.84	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	9421	21232	49846	0	14565
	21232	43039	190963	0	0	11535	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
2004	1	12	2	0	1	19	19	6.84	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	6900	0	0	65647
	0	68236	6900	0	0	28474	28474	0	28474	0	0
	0	28474	0	0	0	0	0	0	0	0	0
	389039										
2004	1	12	2	0	1	20	20	6.91	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	7344	6900	0	0
	7344	0	0	189594	0	0	197260	182695	0	0	182695
	0	0	182695	0	0	0	0	0	0	0	0
	182695										
2004	1	12	2	0	1	21	21	6.42	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0.00E+00	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	6900	7267	0	6900	0	0	0	0	0	182695	0
	0	0	0	0	0	0	0	0	0	0	0
	182695										
2004	1	12	2	0	1	22	22	3.28	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	28474	0	0	0	0	0	0	0	0	11535
	182695	0	0	0	0	0	0	28474	0	0	0
	182695										
2004	1	12	2	0	1	23	23	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	11535	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	1	1	1.07	11604	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	2	2	2.21	30110	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	3	3	1.07	0	8973	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	4	4	1.07	0	0	10332
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2005	1	12	1	0	1	5	5	1.14	0	0	0
	20664	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	6	6	2.42	0	0	0
	61992	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	7	7	1.07	0	0	0
	10332	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	9	9	1.07	0	0	0
	0	10332	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	10	10	1.07	0	0	0
	0	0	10332	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	11	11	1.07	0	0	0
	0	22573	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	11	11	1.07	0	0	0
	0	22573	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	12	12	4.28	0	0	0
	0	0	20664	205726	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	13	13	3.28	0	0	0
	0	0	22573	34569	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	14	14	1.07	0	0	0
	0	0	0	11523	0	0	0	0	0	0	0

			0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0
			0								
2005	1	12	1	0	1	15	15	6.49	0	0	0
	0	0	0	125436	25897	117568	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	16	16	5.42	0	0	0
	0	0	0	22573	114459	194276	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	17	17	8.7	0	0	0
	0	0	0	22573	131704	116121	7811	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	18	18	12.98	0	0	0
	0	0	0	91413	91413	323345	31822	7811	11022	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	19	19	11.84	0	0	0
	0	0	0	0	0	188887	27885	106739	6134	15205	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	20	20	9.63	0	0	0
	0	0	0	0	0	194276	0	15166	8694	25154	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	21	21	10.84	0	0	0
	0	0	0	0	0	12332	91413	14840	106956	99224	0
	17568	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	1	0	1	22	22	5.35	0	0	0
	0	0	0	0	0	0	0	5406	12083	7767	91413
	0	9121	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

2005	1	12	1	0	1	25	25	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	9282	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	1	1	1.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	23208
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	2	2	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	11604	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	3	3	1.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	20664	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	4	4	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	10332	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	5	5	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	20664	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	6	6	1.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	30996	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	7	7	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	13342	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	8	8	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	10332	10332	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	9	9	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	10332	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	12	12	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	11071	0	102863	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	13	13	6.49	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	4889	28841	142949	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	14	14	7.56	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	136376	165800	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	15	15	8.63	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	22573	8320	180389	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	16	16	14.19	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	24932	70471	27633	111440	7811	7811
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	17	17	16.61	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	125603	172736	27409	31137	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	18	18	13.68	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	13336	32775	40379	207396	282051
15416	7811	0	7127	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2005	1	12	2	0	1	19	19	13.12	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	8577	91413	40275	8577	
16388	0	99224	124675	0	0	0	0	0	0	0	0
11022	0	0	0	0	0	0	0	0	0	0	0
0											
2005	1	12	2	0	1	20	20	7.56	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
9282	0	0	0	8320	7394	0	0	0	0	13983	22159
	0	0	0	0	0	0	0	0	0	0	0
0											
2005	1	12	2	0	1	21	21	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	9282	0	0	0	8577
	0	0	0	0	0	0	0	0	0	0	0
0											
2006	1	12	1	0	1	2	2	1.07	0	9256	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	3	3	1.07	0	0	9256
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	4	4	1.07	0	0	0
9256	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	5	5	1.07	0	0	8621
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	6	6	1.07	0	0	7697
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	9	9	1.07	0	0	0
11422	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	12	12	2.14	0	0	0
	0	0	41456	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	13	13	2.21	0	0
0	8553	45249	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	14	14	3.21	0	0
0	0	157567	17106	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	15	15	4.35	0	0
0	0	0	39729	0	28289	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	16	16	11.05	0	0
0	0	0	74529	208337	166455	1099078	199023	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	17	17	8.84	0	0
0	0	0	0	70525	157567	181701	437897	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	18	18	8.98	0	0
0	0	0	0	342684	44115	188374	0	0	15246	15246
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	19	19	8.77	0	0
0	0	0	0	0	1076454	209471	560660	1356783	0	1099078
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	20	20	13.05	0	0
0	0	0	0	0	0	0	0	332962	296688	296635
2152907	1091699	8888	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0

2006	1	12	1	0	1	21	21	12.05	0	0	0
	0	0	0	0	0	0	0	0	1103764	31603	31946
15246	8115	1085714	1076454	1076454	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	22	22	5.35	0	0	0
	0	0	0	0	0	0	0	0	1076454	330380	
	0	0	0	9418	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	23	23	4.28	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	289748	0	0	0	0	0	0	1076454	15246	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	24	24	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	1076454	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	25	25	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	280330
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	1	0	1	26	26	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	5	5	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	8224	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	6	6	3.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	19187	7697	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	7	7	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	7697	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	8	8	1.07	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0
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	0	0	7697	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	11	11	2.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	13254	41456	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	12	12	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	7417	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	13	13	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	22624	20728	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	14	14	6.7	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	1161262	1400135	20728	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	15	15	8.56	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	43352	189609	1514350	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	16	16	14.33	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	225440	304129	111553	175061	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	17	17	15.26	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	22624	29616	504688	595463	0	1115498
	0	7167	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	18	18	15.17	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	8553	157567	455002	1295688	364691
53803	1104534	1076454	23799	0	2152907	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	19	19	15.33	0	0
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0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	15917	17106	597973
302927	1083806	0	10854	15246	1076454	0	1076454	0	0	0
0	0	280330	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	20	20	7.56	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	7130	0	0	0	280330	0	0	304516	0	0
0	9260	0	1356784	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	21	21	4.42	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	1076454	22624	0	280330	0	1076454	0	0	0	1076454
0	0	0	0	280330	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2006	1	12	2	0	1	22	22	2.14	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	7804	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	4	4	2.21	0	8370
0	0	0	0	0	0	0	0	0	0	16740
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	5	5	2.21	0	0
8370	0	0	0	0	0	0	0	0	0	16740
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	6	6	3.49	0	0
33480	0	0	0	0	0	0	0	0	0	21740
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	7	7	6.56	0	0
36795	0	0	0	0	0	0	0	0	0	31822
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	8	8	7.89	0	0
152151	1	12	1	0	1	8	8	0	0	0
152151	53980	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	9	9	6.05	0	0	0
	78575	35569	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	10	10	6.7	0	0	0
	26740	53172	12144	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	11	11	3.35	0	0	0
	0	12144	48158	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	12	12	3.56	0	0	0
	0	24288	47741	24288	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	13	13	6.7	0	0	0
	0	0	48576	40448	20096	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	14	14	4.28	0	0	0
	0	0	15181	6456	7595	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	15	15	1.07	0	0	0
	0	0	0	0	0	18050	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	16	16	8.7	0	0	0
	0	0	0	5553	50113	27272	6456	32743	18050	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

2007	1	12	1	0	1	17	17	6.49	0	0	0
	0	0	0	0	0	6293	67499	8685	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	18	18	12.26	0	0	0
	0	0	0	0	32743	76779	94160	20411	29776	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	19	19	6.63	0	0	0
	0	0	0	0	0	29776	46640	69555	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	20	20	12.61	0	0	0
	0	0	0	0	0	49012	58797	122169	61914	0	0
	6861	32743	36100	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	21	21	11.12	0	0	0
	0	0	0	0	0	32743	0	8685	66514	36100	0
	24881	0	32743	35420	18050	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	22	22	8.91	0	0	0
	0	0	0	0	0	8685	0	8685	47688	32743	0
	72354	6861	27272	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	23	23	5.42	0	0	0
	0	0	0	0	0	0	0	0	32743	7489	0
	6868	0	6861	24911	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	24	24	2.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	18050	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	1	0	1	25	25	3.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	18050	0	0	11726	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	6	6	3.56	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	23425	40165	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	7	7	5.77	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	85719	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	8	8	8.17	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	175534	48782	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	9	9	6.7	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	34019	33466	12144	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	10	10	5.77	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	26740	15055	43939	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	11	11	5.7	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	52081	48576	6456	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	12	12	3.35	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	32658	24288	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	13	13	7.49	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	7279	20705	43610	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	14	14	7.7	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

				27793	60090	6927	0	0	0	0
				0	0	0	0	0	0	0
				0	0	0	0	0	0	0
				0	0	0	0	0	0	0
				0	0	0	0	0	0	0
2007	1	12	2	0	1	15	15	6.42	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	7279	8370	16769	8126	7284	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	16	16	12.4	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	27690	43654	101451	27279	32743
	0	0	0	0	0	0	0	0	0	6861
	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	17	17	13.89	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	76685	129174	115487	128321
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	18	18	24.06	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	11726	55910	232223	137986	178504
	67879	78171	28563	0	18050	0	0	0	18050	0
	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	19	19	20.96	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	15677	50136	30863
	63307	39854	6861	13317	34286	7732	11726	0	0	32743
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	20	20	17.66	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	32743	21864	24911
	36644	96446	31773	54879	31772	43498	18587	11726	18050	6868
	6868	0	12246	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	21	21	4.28	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	12352	0	0	0	6868	0	0	0
	0	0	0	0	0	0	0	0	0	11726
	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	23	23	1.07	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	7753	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2007	1	12	2	0	1	24	24	1.07	0	0
	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	8685	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2007	1	12	2	0	1	26	26	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	7220	0	0	0	0	0	0	0	0	0
	0										
2008	1	12	1	0	1	1	1	1.07	38423	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2008	1	12	1	0	1	2	2	1.28	153694	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2008	1	12	1	0	1	4	4	2.49	0	268964	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2008	1	12	1	0	1	5	5	2.7	0	384235	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2008	1	12	1	0	1	7	7	1.07	0	0	0
	7246	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2008	1	12	1	0	1	8	8	1.07	0	0	8213
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2008	1	12	1	0	1	9	9	3.21	0	0	0
	50134	9003	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										

2008	1	12	1	0	1	10	10	3.42	0	0	0
	7246	75202	18007	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	11	11	8.63	0	0	0
	25067	67189	34071	14218	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	12	12	11.05	0	0	0
	25067	73037	53562	9003	27909	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	13	13	8.84	0	0	0
	0	25067	37811	29229	50629	9902	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	14	14	9.12	0	0	0
	0	0	75202	62640	156639	10728	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	15	15	10.91	0	0	0
	0	0	0	32743	57175	89750	9902	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	16	16	7.7	0	0	0
	0	0	0	0	84425	76870	28569	9902	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	17	17	7.26	0	0	0
	0	0	0	0	57138	197227	65620	57139	28569	28569	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	18	18	7.77	0	0	0
	0	0	0	0	0	17241	132780	9902	9902	9902	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	19	19	6.7	0	0	0
	0	0	0	0	0	9902	36343	57139	37050	28569	0
	9902	28569	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	20	20	8.84	0	0	0
	0	0	0	0	0	0	62122	20103	44825	0	7774
	20103	10201	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	21	21	10.4	0	0	0
	0	0	0	0	0	0	0	28569	135451	57139	10201
	10201	19439	20402	0	35784	0	25067	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	22	22	9.33	0	0	0
	0	0	0	0	0	0	0	28569	0	0	48971
	30603	47252	9902	30603	25067	0	10201	9902	0	8481	0
	10201	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	23	23	2.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	17975	10201	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	24	24	2.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	10201	0	10201	0	0	0	0
	0	0	0	0	0	0	0	10201	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	25	25	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	10201	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	1	0	1	26	26	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	9345	0	0	0	9238
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	1	1	4.42	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	170119

	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	2	2	6.19	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	8176	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	4	4	3.35	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	131622	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	5	5	4.91	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	410160	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	6	6	1.07	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	38423	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	7	7	2.21	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	14492	7246	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	8	8	4.28	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	31671	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	9	9	4.35	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	48563	9003	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	10	10	9.05	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	159696	42926	9003	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	11	11	6.63	0	0
	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	9003	25562	79528	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	12	12	11.12	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	25067	81258	123282	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	13	13	12.54	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	34566	33117	152787	77917	47091	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	14	14	12.33	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	25067	52002	24333	115104	41626	19804	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	15	15	13.54	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	8696	113926	33117	76687	45885	25067	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	16	16	9.19	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	33117	44963	87964	28569	10728	27578
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	17	17	15.05	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	69461	8545	50107	15388	45686
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	18	18	13.05	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	41626	25617	0	34907
	52051	32877	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2008	1	12	2	0	1	19	19	6.42	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	7973	0	25067
	0	0	7215	28569	0	0	8027	0	0	10201	0
	0	0	0	0	0	0	0	0	0	0	0

9547

2008	1	12	2	0	1	20	20	6.42	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
7774	0	0	9902	0	0	0	0	0	0	0	10201
	0	0	0	0	35268	0	0	0	0	0	0
38626											
2008	1	12	2	0	1	21	21	5.42	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	25067
	0	0	0	25067	0	0	0	0	0	0	0
10201											
2008	1	12	2	0	1	22	22	4.28	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	8288	0	0	0
	0	0	8481	0	0	0	0	0	0	25067	0
0											
2008	1	12	2	0	1	24	24	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	8844	0	0	0	0	0	0	0	0
0											
2009	1	12	1	0	1	1	1	1.07	8511	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
0											
2009	1	12	1	0	1	3	3	1.07	0	8732	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
0											
2009	1	12	1	0	1	4	4	2.21	0	25365	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
0											
2009	1	12	1	0	1	5	5	3.21	0	24911	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
0											
2009	1	12	1	0	1	8	8	2.14	0	0	0
	0	16666	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
0											

	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	1	0	1	9	9	1.07	0	0	0
	0	0	8560	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	1	0	1	10	10	2.14	0	0	0
	0	8106	8106	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	1	0	1	11	11	2.14	0	0	0
	0	10295	0	8106	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	1	0	1	12	12	7.19	0	0	0
	0	27104	16666	72694	145388	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	1	0	1	13	13	7.56	0	0	0
	0	0	20590	50157	32946	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	1	0	1	14	14	5.42	0	0	0
	0	0	8868	38503	0	29635	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	1	0	1	15	15	8.63	0	0	0
	0	8868	0	0	61161	48798	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	1	0	1	16	16	2.21	0	0	0
	0	0	0	0	10295	18401	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	1	0	1	17	17	3.21	0	0	0
	0	0	0	0	0	20041	0	7326	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2009	1	12	1	0	1	18	18	4.28	0	0	0
	0	0	0	0	7093	0	18394	0	0	0	0
	0	0	0	0	0	0	0	9149	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2009	1	12	1	0	1	19	19	2.14	0	0	0
	0	0	0	0	0	0	0	7093	0	10892	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2009	1	12	1	0	1	20	20	4.28	0	0	0
	0	0	0	0	0	0	10892	0	7730	0	10295
	0	9149	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2009	1	12	1	0	1	21	21	6.56	0	0	0
	0	0	0	0	0	0	9149	9149	9149	10478	0
	11417	10892	19444	0	0	0	0	0	0	8185	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2009	1	12	1	0	1	22	22	5.42	0	0	0
	0	0	0	0	0	0	0	9149	0	0	0
	8185	0	0	9786	0	9149	8185	10295	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2009	1	12	1	0	1	23	23	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	10295	0	0	9149	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2009	1	12	1	0	1	23	23	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	10295	0	0	9149	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2009	1	12	1	0	1	24	24	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	10295	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2009	1	12	2	0	1	3	3	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2009	1	12	2	0	1	4	4	3.63	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	68166	8560	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	5	5	4.49	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	57614	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	6	6	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	7791	8560	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	7	7	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	8106	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	8	8	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	16351	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	9	9	2.28	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	17120	17120	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	10	10	3.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	16666	0	21529	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	11	11	9.19	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	43317	24083	86118	73456	0	8106	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	12	12	10.19	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	21529	58248	68877	60032	43059	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

2009	1	12	2	0	1	13	13	5.49	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	31824	53354	0	8868	8868	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	14	14	7.12	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	16508	68707	94223	39676	0	21529	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	15	15	8.84	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	18797	0	40692	43838	20590	10892	21529
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	16	16	8.7	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	42716	10892	31434	10295	0	0
0	21529	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	17	17	5.91	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	17681	20590	41180	29372	0	0
10295	10295	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	18	18	8.77	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	30026	27154
10295	0	0	22834	7386	0	11417	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	19	19	5.49	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	10295
10295	10295	17621	0	18480	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	20	20	7.56	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	8185	0	8185	0	9788	11417	10295	9149	10892	0	0
8024	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
2009	1	12	2	0	1	21	21	1.07	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	8185	0

	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	2	2	1.07	7716	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	3	3	2.98	108022	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	4	4	1.07	0	0	7727
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	5	5	3.35	0	0	40315
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	6	6	2.49	0	0	60450
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	7	7	1.21	0	0	25907
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	10	10	2.14	0	0	0
	0	19752	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	11	11	1.07	0	0	0
	0	9464	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	12	12	4.35	0	0	0
	0	19752	9464	17730	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2010	1	12	1	0	1	13	13	6.84	0	0	0
	0	0	10288	96169	9875	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	14	14	10.19	0	0	0
	0	0	0	67367	78632	17730	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	15	15	6.7	0	0	0
	0	0	0	0	166113	25859	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	16	16	7.49	0	0	0
	0	0	0	0	10288	37526	7700	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	17	17	9.7	0	0	0
	0	0	0	0	10288	28370	126520	0	8266	0	7072
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	18	18	3.21	0	0	0
	0	0	0	0	0	6931	0	106405	8498	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	18	18	3.21	0	0	0
	0	0	0	0	0	6931	0	106405	8498	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	19	19	8.63	0	0	0
	0	0	0	0	0	0	0	114199	129917	0	0
	7072	7794	0	8653	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	20	20	8.84	0	0	0
	0	0	0	0	0	0	0	113518	114903	115058	114613
	120954	106405	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	21	21	6.98	0	0	0
	0	0	0	0	0	0	0	0	212810	221462	

	221463	221018	212810	0	0	7072	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	22	22	12.4	0	0	0
	0	0	0	0	0	0	0	0	0	106405	106405
	106405	220604	122627	106405	153465	113939	0	0	0	0	0
	7794	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	23	23	4.28	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	106405	8653	0	0	7794	0	0	8426
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	24	24	6.49	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	8653	0	7794	8653	121993	9948	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	1	0	1	25	25	1.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	106405	0	106405	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	2	0	1	1	1	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	7716
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	2	0	1	2	2	3.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	15432
	7727	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	2	0	1	3	3	6.54	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	146602
	21226	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	2	0	1	4	4	3.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	15443	8636	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

2010	1	12	2	0	1	5	5	2.49	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	60450	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
2010	1	12	2	0	1	6	6	3.7	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	83494	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
2010	1	12	2	0	1	7	7	2.21	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	23044	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
2010	1	12	2	0	1	10	10	2.14	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	10288	0	8266	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
2010	1	12	2	0	1	11	11	1.14	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	10288	10288	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
2010	1	12	2	0	1	12	12	4.28	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	7700	27546	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
2010	1	12	2	0	1	13	13	8.91	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	10288	0	72666	28589	8266	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
2010	1	12	2	0	1	13	13	8.91	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	10288	0	72666	28589	8266	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
2010	1	12	2	0	1	14	14	6.98	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	59142	60906	35863	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
2010	1	12	2	0	1	15	15	10.84	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	17988	26196	33055	18117	0	0	0
8123	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	2	0	1	16	16	13.19	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	38565	14709	123851	145401	8615	0
	7700	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	2	0	1	17	17	18.19	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	15691	7794	35888	23764	137264
	16194	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	2	0	1	18	18	12.84	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	8208	228568	23908
	8266	16222	0	0	0	8653	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	2	0	1	19	19	14.19	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	106405	0
	14866	129335	121433	7794	115319	7440	0	0	0	106405	0
	0	0	7534	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2010	1	12	2	0	1	20	20	9.84	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	6034	113141	0	0	0	123039	106405	114199	106405	0	0
	16574	0	0	0	0	0	0	0	8498	0	0
	8498	0	0	0	0	0	0	0	0	0	0
2010	1	12	2	0	1	21	21	4.35	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	8013
	0	0	0	0	0	0	0	0	114831	0	106405
	0	0	0	0	0	0	0	0	0	0	0
	8498	0	0	0	0	0	0	0	0	0	0
2010	1	12	2	0	1	22	22	3.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	7794	0	0	0	0	0	106405	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
#	Triennial	survey	conditionals		(n=217)						
1983	1	13	1	0	1	3	3	1.14	68.35	68.35	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	4	4	1.14	0	136.7	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	5	5	2.28	0	1071.566	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	6	6	2.21	0	934.8661	68.35
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	7	7	3.35	0	0	137.2792
1003.216	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	8	8	6.26	0	0	1938.661
3215.278	68.35	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	9	9	9.92	0	0	205.05
10639.04	119.23	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	10	10	13.81	0	0	119.23
25256.28	853.0851	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	11	11	13.69	0	0	0
8851.196	3270.325	274.4051	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	12	12	15.85	0	0	0
3267.589	9369.206	477.7368	54.4775	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0

1983	1	13	1	0	1	13	13	13.59	0	0	0
	68.35	5273.543	618.1973	316.8574	0	54.4775	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	14	14	16.01	0	0	0
	0	1383.82	654.8543	828.5237	70.01429	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	15	15	17.45	0	0	0
	0	68.35	550.0615	929.3401	196.795	0	140.3946	12.32	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	16	16	17.89	0	0	0
	0	0	81.0598	1671.057	333.7599	998.1472	266.9624	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	17	17	14.52	0	0	0
	0	0	343.8408	1242.1	806.5965	457.311	128.4152	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	18	18	16.22	0	0	0
	0	0	68.35	90.16302	324.1718	1710.85	1391.807	1020.459	343.8105	0	0
0	0	0	0	0	0	0	68.92924	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	19	19	13.52	0	0	0
	0	0	128.4152	112.1718	443.0446	1089.583	1217.146	469.8548	581.7685	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	20	20	13.45	0	0	0
	0	0	0	0	0	183.7386	367.176	1227.444	264.4086	395.431	432.1307
243.4962	994.9313	0	280.35	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	21	21	15.36	0	0	0
	0	0	0	0	0	0	0	671.5023	1241.905	756.8156	1724.974
1074.298	126.0443	12.32	256.8303	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	22	22	16.29	0	0	0
	0	0	0	0	0	0	0	216.24	687.621	302.9686	318.8861
	1037.639	271.051	254.4594	12.32	151.7807	274.6082	175.1462	111.9137	128.4152	0	68.35
	0	198.6124	0	70.1973	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	23	23	12.75	0	0	0
	0	0	0	0	0	0	0	0	68.35	555.8105	
	278.1823	57.69429	68.35	376.3055	323.9137	338.0443	54.4775	68.35	91.71552	0	128.4152
	0	68.35	0	0	0	0	0	0	0	68.35	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	24	24	8.12	0	0	0
	0	0	0	0	0	0	0	0	0	68.35	
	57.69429	0	68.35	0	212	68.35	68.35	151.7807	68.35	0	111.9137
	0	0	160.0655	0	68.35	68.35	0	0	0	68.35	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	25	25	5.63	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	68.35	212	0	216.24	0	111.9137	0	212	0	0
	0	68.35	0	68.35	0	0	68.35	68.35	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	1	0	1	26	26	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	68.35	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	2	0	1	4	4	1.35	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	341.75	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	2	0	1	5	5	1.56	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	546.8	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	2	0	1	6	6	2.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	119.23	68.35	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1983	1	13	2	0	1	7	7	3.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

0	866.5161	137.2792	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
1983	1	13	2	0	1	8	8	6.54	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	2599.548	4424.702	68.35	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
1983	1	13	2	0	1	9	9	9.01	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	1783.912	12160.72	136.7	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
1983	1	13	2	0	1	10	10	13.46	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	21146.27	666.6092	54.4775	68.35	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
1983	1	13	2	0	1	11	11	15.39	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	50.88	12016.17	6404.001	80.67	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
1983	1	13	2	0	1	12	12	12.01	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	3910.154	6571.06	328.8826	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
1983	1	13	2	0	1	13	13	11.24	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	54.4775	2676.789	643.4669	262.5429	12.32	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
1983	1	13	2	0	1	14	14	14.66	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2528.666	752.7975	425.3714	57.69429	101.76	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
1983	1	13	2	0	1	15	15	15.87	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	208.0558	1549.219	859.4029	1584.102	122.8275	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
1983	1	13	2	0	1	16	16	19.8	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	1142.769	1002.724	1528.884	519.3132	506.8623	212	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	13	2	0	1	17	17	17.22	0	0	0
1983	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	128.4152	280.35	1431.522	2042.251	1088.317	1126.82	216.24
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	13	2	0	1	18	18	14.69	0	0	0
1983	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	248.6137	996.5949	2889.601	2068.12
1268.925	194.3943	196.7652	0	0	0	0	0	0	0	956.2608
0	0	0	0	0	0	0	0	0	0	0
0	13	2	0	1	19	19	22.54	0	0	0
1983	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	494.1973	0	601.4855	767.8779
3146.363	2109.39	2240.413	1280.573	1209.2	692.3563	867.8847	23.36552	503.876	710.9865	277.4352
0	0	0	0	0	0	0	0	0	180.2637	23.36552
138.5473										
1983	1	13	2	0	1	20	20	21.61	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	128.4152	428.24
1025.795	2080.831	1261.96	472.9337	805.596	684.1397	925.579	265.1152	385.3137	210.9455	925.579
647.526	687.621	194.3943	323.9137	816.3572	608.9256	1072.866	186.1094	563.9412	628.4005	198.6124
906.11772										
1983	1	13	2	0	1	21	21	16.9	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
485.9343	1031.431	57.69429	0	624.1605	844.6405	0	967.971	819.7265	813.6653	327.3886
128.4152	380.5037	91.71552	115.3886	254.4594	111.9137	0	0	269.6943	0	305.5628
2021.1464										
1983	1	13	2	0	1	22	22	12.75	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	57.69429	343.8105	212	0	0	57.69429	0	0	269.6943
0	0	0	23.36552	343.8105	396.5037	0	0	186.1094	0	0
1264.83428										
1983	1	13	2	0	1	23	23	4.35	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	57.69429	57.69429	0	0	0	0	0	0
463.0405										
1989	1	13	1	0	1	5	5	1.07	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0

1989	1	13	1	0	1	7	7	1.07	0	0	0
	0	17.19367	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	1	0	1	8	8	2.56	0	0	17.19367
	35.3694	103.162	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	1	0	1	9	9	2.63	0	0	0
	0	228.428	17.19367	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	1	0	1	10	10	4.63	0	0	0
	0	257.4364	0	17.19367	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	1	0	1	11	11	2.63	0	0	0
	0	300.1489	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	1	0	1	12	12	2.28	0	0	0
	0	52.56307	0	0	34.38735	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	1	0	1	13	13	4.56	0	0	0
	0	70.7388	0	62.41367	34.38735	35.3694	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	1	0	1	14	14	2.28	0	0	0
	0	0	0	7.59	0	41.97735	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	1	0	1	15	15	3.28	0	0	0
	0	0	0	0	35.3694	120.3148	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
	0										
1989	1	13	1	0	1	16	16	3.49	0	0	0
	0	0	0	0	179.3333	164.1313	126.1813	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1989	1	13	1	0	1	17	17	3.35	0	0	0
	0	0	0	0	65.48333	0	0	191.6647	126.1813	37.63	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1989	1	13	1	0	1	18	18	3.21	0	0	0
	0	0	0	0	44.41478	0	65.48333	1.39	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1989	1	13	1	0	1	19	19	3.49	0	0	0
	0	0	0	0	163.8113	40.76583	333.8944	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1989	1	13	1	0	1	20	20	5.56	0	0	0
	0	0	0	0	0	85.18062	166.9472	252.3627	0	0	0
1.39	65.48333	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1989	1	13	1	0	1	21	21	2.42	0	0	0
	0	0	0	0	0	126.1813	126.1813	126.1813	39.29	0	0
	0	126.1813	0	126.1813	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1989	1	13	1	0	1	22	22	3.56	0	0	0
	0	0	0	0	0	0	0	1.39	0	0	126.1813
	40.76583	126.1813	0	126.1813	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	126.1813	0	252.3626	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1989	1	13	1	0	1	23	23	6.7	0	0	0
	0	0	0	0	0	0	108.0475	0	0	126.1813	0
	5807.062	40.76583	65.48333	126.1813	0	0	0	126.1813	0	0	0
	126.1813	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1989	1	13	1	0	1	24	24	5.49	0	0	0
	0	0	0	0	0	0	0	1.39	0	2883.886	0
1.39	2883.886	0	126.1813	0	108.0475	0	108.0475	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

			0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0
1989	1	13	1	0	1	27	27	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	2883.886
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	4	4	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	17.19367	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	5	5	1.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	34.38735	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	6	6	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	35.3694	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	7	7	2.28	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	86.95042	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	8	8	2.63	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	192.0766	17.19367	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	9	9	2.56	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	120.3557	35.3694	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	10	10	1.49	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	247.5858	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	11	11	2.56	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	229.4101	0	0	17.19367	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	12	12	2.35	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	123.3019	0	35.3694	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	13	13	3.42	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	35.3694	35.3694	54.82367	34.38735	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	14	14	1.07	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	37.63	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	15	15	2.28	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	44.41478	106.0232	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	16	16	5.63	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	65.48333	252.9609	170.5961	85.18062	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	17	17	6.77	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	44.41478	0	150.6639	170.5961	378.544
95.735	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	18	18	9.19	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	44.41478	126.1813	189.6893	373.6975	80.05583
80.05583	126.1813	65.48333	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1989	1	13	2	0	1	19	19	7.05	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	44.41478	0	298.1675	271.7205
165.4713	126.1813	39.29	126.1813	0	0	126.1813	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0

1989	1	13	2	0	1	20	20	5.98	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	39.29	191.6647
	0	165.4713	252.3627	39.29	170.5961	0	83.70478	37.63	0	0	0
	0	0	0	126.1813	0	0	0	0	0	0	0
	0										
1989	1	13	2	0	1	21	21	4.56	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	65.48333	0	1.39
	0	0	39.29	0	0	0	78.58	0	0	0	0
	65.48333	0	0	0	0	0	0	0	191.6647	0	0
	0										
1989	1	13	2	0	1	22	22	4.28	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	108.0475	0	0	0
	0	0	0	0	0	0	0	0	0	65.48333	0
	170.59608										
1989	1	13	2	0	1	23	23	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	126.1813	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1992	1	13	1	0	1	5	5	1.07	0	0	6.72
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1992	1	13	1	0	1	7	7	1.07	0	0	0
	46.93345	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1992	1	13	1	0	1	8	8	1.14	0	0	0
	0	46.93345	0	46.93345	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1992	1	13	1	0	1	9	9	1.14	0	0	0
	93.8669	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1992	1	13	1	0	1	10	10	1.21	0	0	0
	93.8669	46.93345	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	11	11	2.21	0	0	0
	0	46.93345	53.65345	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	12	12	2.21	0	0	0
	0	0	46.93345	51.62182	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	13	13	2.35	0	0	0
	93.8669	0	0	93.8669	4.688372	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	14	14	1.42	0	0	0
	0	0	46.93345	93.8669	93.8669	46.93345	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	15	15	2.7	0	0	0
	0	0	98.55527	103.2436	93.8669	4.688372	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	16	16	3.7	0	0	0
	0	0	0	98.55527	140.8003	98.55527	0	0	0	0	0
	0	0	0	12.78	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	17	17	3.42	0	0	0
	0	0	0	51.62182	56.31019	0	5.12	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	18	18	3.35	0	0	0
	0	0	0	8.96	4.688372	4.688372	46.93345	4.688372	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	19	19	2.42	0	0	0
	0	0	0	0	0	12.78	14.06512	12.78	0	0	0
	0	12.78	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	20	20	5.56	0	0
0	0	0	0	0	0	12.78	22.7	17.55867	4.688372	12.78
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	21	21	2.21	0	0
0	0	0	0	0	0	0	0	12.78	12.78	4.778667
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	22	22	4.91	0	0
0	0	0	0	0	0	4.778667	0	17.46837	22.26837	22.24704
0	0	25.56	4.8	0	4.778667	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	23	23	2.42	0	0
0	0	0	0	0	0	0	0	12.78	0	12.78
0	38.34	0	0	0	0	4.8	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	24	24	3.21	0	0
0	0	0	0	0	0	0	0	0	0	0
4.688372	12.78	4.8	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	1	0	1	25	25	2.14	0	0
0	0	0	0	0	0	0	0	0	0	0
12.78	0	0	0	8.96	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	2	0	1	9	9	1.14	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	46.93345	46.93345	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	2	0	1	13	13	1.35	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	46.93345	140.8003	46.93345	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	2	0	1	14	14	2.49	0	0
0	0	0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	46.93345	103.2436	93.8669	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	2	0	1	15	15	2.42	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	51.62182	98.55527	4.688372	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	2	0	1	16	16	2.42	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	51.62182	0	140.8003	46.93345	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	2	0	1	17	17	1.14	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	4.688372	4.688372	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	2	0	1	18	18	3.77	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	4.688372	4.688372	17.46837	22.15674	4.688372
12.78	4.778667	12.78	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	2	0	1	19	19	4.7	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	4.778667	0	12.78	14.24571	0
0	0	0	39.84837	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	2	0	1	20	20	6.05	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	4.8	4.8	0
17.55867	12.78	0	9.808372	9.376744	17.58	0	0	4.688372	4.8	0
4.688372	0	0	0	0	4.8	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	2	0	1	21	21	3.42	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
12.78	5.12	0	12.78	0	0	0	0	4.8	0	12.78
0	5.12	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1992	1	13	2	0	1	22	22	3.49	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	4.778667	5.12	4.8	4.778667	0
0	0	0	0	0	0	0	0	0	0	0
14.336001										

1992	1	13	2	0	1	23	23	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	5.12	0	0	0	0	0	0	0	0
	0										
1995	1	17	1	0	1	5	5	1.07	0	0	0
	10.95	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1995	1	17	1	0	1	7	7	1.07	0	12.702	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1995	1	17	1	0	1	8	8	1.07	0	0	0
	87.7344	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1995	1	17	1	0	1	9	9	2.28	0	0	0
	0	282.4432	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1995	1	17	1	0	1	10	10	4.56	0	0	0
	15.05625	350.9376	106.9744	12.702	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1995	1	17	1	0	1	10	10	4.56	0	0	0
	0	223.197	34.29625	53.31978	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1995	1	17	1	0	1	11	11	7.84	0	0	0
	0	223.197	34.29625	53.31978	0	0	21.37778	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1995	1	17	1	0	1	12	12	5.63	0	0	0
	0	0	49.3525	77.05181	12.702	0	12.702	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
1995	1	17	1	0	1	13	13	5.91	0	0	0
	0	0	42.8145	128.1946	46.12478	25.404	0	12.702	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
1995	1	17	1	0	1	14	14	5.35	0	0	0
	0	0	15.05625	87.7344	0	40.61778	0	12.702	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1995	1	17	1	0	1	15	15	5.49	0	0	0
	0	0	15.05625	0	19.24	15.05625	12.702	61.27941	60.54941	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1995	1	17	1	0	1	16	16	5.56	0	0	0
	0	0	0	0	21.98778	43.48556	60.54941	72.59441	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1995	1	17	1	0	1	17	17	4.28	0	0	0
	0	0	0	0	0	0	0	70.17	0	60.54941	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1995	1	17	1	0	1	18	18	3.21	0	0	0
	0	0	0	0	0	0	0	132.7694	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1995	1	17	1	0	1	19	19	3.21	0	0	0
	0	0	0	0	0	0	0	75.60566	0	19.24	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1995	1	17	1	0	1	20	20	6.63	0	0	0
	0	0	0	0	0	0	0	0	0	149.3494	111.6202
	0	19.24	19.24	0	0	0	0	60.54941	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1995	1	17	1	0	1	21	21	3.42	0	0	0
	0	0	0	0	0	0	0	60.54941	50.32	0	2.44
50.32	0	100.64	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
1995	1	17	1	0	1	22	22	4.35	0	0	0
	0	0	0	0	0	0	0	0	0	0.732	0.7507692
	0	51.13333	0.8133333	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	1	0	1	23	23	3.49	0	0
0	0	0	0	0	0	0	0	0	0	0.732
0	0	50.32	0	0	110.8694	121.0988	60.54941	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	1	0	1	24	24	1.14	0	0
0	0	0	0	0	0	0	0	0	0	60.54941
0	0	0	0	0	60.54941	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	1	0	1	25	25	2.21	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	60.54941	50.32	0	0	0	60.54941	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	2	0	1	6	6	1.07	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	19.24	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	2	0	1	7	7	2.14	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	34.29625	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	2	0	1	8	8	3.21	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	106.9744	15.05625	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	2	0	1	9	9	7.7	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	100.4364	164.6944	106.9744	12.702	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	2	0	1	10	10	4.49	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	30.1125	87.7344	34.07978	12.702	12.702	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	2	0	1	11	11	9.26	0	0
0	0	0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	240.8336	250.1664	36.43403	91.83441	21.37778	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	2	0	1	12	12	6.84	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	166.0177	117.8469	87.7344	24.09	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	2	0	1	13	13	8.84	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	50.525	16.51625	27.10125	53.31978	0	0.73	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	2	0	1	14	14	5.49	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	15.78625	0	43.48556	0	31.942	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	2	0	1	15	15	3.35	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	61.27941	12.775	60.54941	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	2	0	1	16	16	4.28	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	19.24	0.732	69.56	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	2	0	1	17	17	8.7	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	19.99077	176.7402	50.32
0.732	60.54941	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	2	0	1	18	18	6.7	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	62.03018	0
0.7507692	1.970769	0	110.8694	0	0	50.32	0	0	0	0
0	0	0	19.24	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1995	1	17	2	0	1	19	19	7.84	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1.482769	0
2.314872	19.99077	0	121.0988	1.22	50.32	60.54941	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0

1995	1	17	2	0	1	20	20	2.42	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	60.54941	0
0	0	50.32	0	50.32	0	0	0	100.64	0	0	50.32
0	0	0	0	0	0	0	0	0	0	0	0
0											
1995	1	17	2	0	1	21	21	4.7	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	1.501538	0	0	0	0	0	50.32	0	0	0	0
121.0988	50.32	0	0	0	50.32	0	60.54941	0	0	0	0
51.05											
1995	1	17	2	0	1	22	22	1.07	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	60.54941	0
0											
2001	1	17	1	0	1	3	3	1.07	0	22.94	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
2001	1	17	1	0	1	6	6	1.07	0	0	0
0	22.94	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
2001	1	17	1	0	1	7	7	1.14	0	0	0
555.8538	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
2001	1	17	1	0	1	8	8	1.07	0	0	0
22.94	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
2001	1	17	1	0	1	9	9	1.14	0	0	0
45.88	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0											
2001	1	17	1	0	1	10	10	3.28	0	0	0
68.82	0	277.9269	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	1	0	1	11	11	5.49	0	0	0
	0	22.94	349.4469	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	1	0	1	12	12	6.56	0	0	0
	0	1.64	45.88	601.7338	0	0	0	22.94	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	1	0	1	13	13	12.54	0	0	0
	0	0	627.3738	950.6008	556.9138	7.438095	22.94	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	1	0	1	14	14	13.4	0	0	0
	0	22.94	24	325.9269	1165.026	0	24	285.365	7.81	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	1	0	1	15	15	12.26	0	0	0
	0	0	0	279.5669	647.6138	858.0702	70.46	47.22941	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	1	0	1	16	16	11.05	0	0	0
	0	0	0	286.425	47.22941	323.8069	32.78751	68.82	7.438095	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	1	0	1	17	17	10.91	0	0	0
	0	0	0	0	0	48.86941	1.06	34.3681	24.58	0	0
1.64	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	1	0	1	18	18	17.33	0	0	0
	0	22.94	0	0	0	1.06	25.92941	93.4	27.56941	38.56	1.06
45.88	0	1.64	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	1	0	1	19	19	14.33	0	0	0
	0	0	0	0	0	22.94	0	346.7469	24.58	98.86	75.92
22.94	0	45.88	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	1	0	1	20	20	11.98	0	0	0
	0	0	0	0	0	0	22.94	0	56.04	70.16941	0
	30.04	22.94	22.94	0	0	22.94	0	7.1	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	1	0	1	21	21	3.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	1.64	22.94	0	22.94	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	1	0	1	22	22	4.28	0	0	0
	0	0	0	0	0	0	0	0	0	0	24.28941
	0	0	22.94	0	7.1	0	7.438095	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	1	0	1	23	23	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	8.52	0	0	7.438095	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	1	0	1	24	24	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	7.1	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	2	0	1	5	5	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	1.06	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	2	0	1	7	7	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	22.94	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	2	0	1	8	8	3.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	24.58	0	0	0	1.06	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2001	1	17	2	0	1	9	9	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	300.8669	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2001	1	17	2	0	1	10	10	4.42	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	308.305	300.8669	0	277.9269	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2001	1	17	2	0	1	11	11	3.28	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	22.94	45.88	1.06	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2001	1	17	2	0	1	12	12	11.54	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	9.8	48	1436.864	601.7338	856.7208	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2001	1	17	2	0	1	13	13	10.33	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	1.64	323.8069	891.3608	287.3769	286.7969	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2001	1	17	2	0	1	14	14	15.19	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	50.7	30.3781	24	555.8538	24.36	0	7.438095
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2001	1	17	2	0	1	15	15	17.26	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	311.005	1.06	372.6763	3.28	54.62	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2001	1	17	2	0	1	16	16	17.68	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	1.64	0	94.45882	79.61941	58.31941	30.3781	49.16
1.64	22.94	22.94	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2001	1	17	2	0	1	17	17	15.12	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	22.94	55.33	67.18	38.82751
24.58	7.81	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0

2001	1	17	2	0	1	18	18	18.82	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	45.88	0	78.90941	24.58
	65.1181	52.98	45.88	30.04	22.94	45.88	0	0	0	0	0
	0	0	7.438095	0	0	0	0	0	0	0	0
	0										
2001	1	17	2	0	1	19	19	6.77	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	22.94	22.94
	22.94	22.94	22.94	45.88	7.1	0	22.94	0	0	22.94	1.64
	0	0	0	0	0	0	0	0	0	0	0
	0										
2001	1	17	2	0	1	20	20	6.98	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	53.3181	0	30.3781	22.94	0	1.64	0	22.94	22.94
	0	0	30.3781	0	22.94	22.94	0	0	0	0	0
	1.06										
2001	1	17	2	0	1	21	21	2.35	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	22.94	22.94	0	0	0	0	0	22.94	0	0	0
	30.378095										
2001	1	17	2	0	1	22	22	2.14	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	22.94	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	22.94										
2004	1	17	1	0	1	3	3	1.07	0	3.94	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2004	1	17	1	0	1	5	5	1.07	0	0	14.97
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2004	1	17	1	0	1	13	13	1.14	0	0	0
	0	10.4016	0	10.4016	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2004	1	17	1	0	1	14	14	2.28	0	0	0
	0	0	0	25.3716	10.4016	10.4016	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	17	1	0	1	15	15	4.49	0	0	0
	0	0	14.97	23.64	20.8032	10.4016	14.97	10.4016	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	17	1	0	1	16	16	6.63	0	0	0
	0	14.97	55.6884	58.1748	14.97	0	7.03	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	17	1	0	1	17	17	7.56	0	0	0
	0	0	0	14.97	22	58.7784	29.94	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	17	1	0	1	18	18	9.7	0	0	0
	0	0	0	3.09	14.97	18.06	28.1	26.97	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	17	1	0	1	19	19	6.56	0	0	0
	0	0	0	0	0	111.3768	70.6584	0	3.09	10.4016	23.96
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	17	1	0	1	20	20	10.77	0	0	0
	0	0	0	0	0	3.09	43.84	6.18	12.08	8.99	
	3.09	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	17	1	0	1	21	21	8.56	0	0	0
	0	0	0	0	0	0	3.09	16.5816	14.97	3.94	
	3.94	0	55.6884	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	17	1	0	1	22	22	6.49	0	0	0
	0	0	0	0	0	0	0	74.85	0	55.6884	
	3.09	8.99	0	0	26.97	14.97	0	0	55.6884	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
2004	1	17	1	0	1	23	23	1.07	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	55.6884	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	17	1	0	1	24	24	2.28	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	55.6884	0	55.6884	0	26.97	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	17	2	0	1	3	3	1.07	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
14.97	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	17	2	0	1	9	9	1.07	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	3.09	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	17	2	0	1	12	12	2.21	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	14.97	25.3716	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	17	2	0	1	13	13	2.14	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	17	2	0	1	14	14	4.56	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	17	2	0	1	15	15	7.77	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	8.99	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	17	2	0	1	16	16	10.77	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
55.6884	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
2004	1	17	2	0	1	17	17	16.82	0	0
	0	0	0	0	0	0	0	0	0	0

	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	6.18	52.06	48.2	21.15	52.06	211.5684
	3.09	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2004	1	17	2	0	1	18	18	20.68	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	3.09	36.12	21.15	109.9084	36.12
	54.02	14.97	14.97	0	0	26.97	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2004	1	17	2	0	1	19	19	9.19	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	55.6884	111.3768
	56.91	41.94	26.97	139.5284	97.6284	26.97	0	0	0	26.97	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2004	1	17	2	0	1	20	20	12.33	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	29.94	3.09	0
	18.06	33.03	55.6884	0	29.94	14.97	109.6284	0	26.97	0	0
	53.94	0	0	53.94	0	0	0	0	0	0	0
	0										
2004	1	17	2	0	1	21	21	1.21	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	55.6884	55.6884	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0										
2004	1	17	2	0	1	22	22	4.28	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	74.85	0	0	0	0	14.97	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	14.97
	14.97										
#	Unchanged	from	2007	WA	Trawl	age	error	key	1	(n=25)	
1980	1	15	3	0	1	-1	-1	14.12	0	0	0
	0	1.138	2.276	2.276	3.414	7.966	7.966	2.276	1.138	2.276	
	1.138	1.138	1.138	1.138	3.414	1.138	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	2.276	5.69	1.138	5.69	6.828	10.242	6.828
	1.138	2.276	0	2.276	3.414	5.69	3.414	1.138	0	2.276	2.276
	0	1.138	1.138	0	1.138	1.138	0	1.138	0	1.138	0
	1.138										
1981	1	15	3	0	1	-1	-1	35.3	0	0	0
	0	0	19.166	68.332	110.669	212.922	397.324	229.214	131.123	58.653	99.62
	21.933	10.967	23.17	68.382	10.967	19.166	5.483	10.967	0	0	0
	5.483	19.166	0	0	0	0	0	0	27.366	0	
	0	0	0	25.887	5.483	135.102	103.598	176.202	510.172	184.052	208.568
	155.64	154.269	66.987	65.616	152.71	47.578	40.966	23.17	10.967	51.824	5.483
	43.816	0	0	13.683	65.616	13.683	0	13.683	19.166	13.683	0
	95.699										
1982	1	15	3	0	1	-1	-1	21.18	0	0	0
	4.269	74.658	41.598	33.65	37.919	33.787	12.807	34.239	30.786	22.474	16.712
	4.495	0	0	0	0	0	0	0	0	0	0
	0	12.443	0	0	0	0	0	0	0	0	0
	0	0	24.886	12.443	83.786	104.403	50.951	58.674	21.433	4.269	29.745
	29.381	35.281	4.269	8.764	4.495	22.474	4.495	4.495	17.979	13.033	21.433

	4.495	12.443	21.433	12.443	0	4.495	4.269	4.495	0	12.443	4.495
	41.824										
1983	1	15	3	0	1	-1	-1	14.12	0	0	0
	0	285.283	285.283	1569.058	1296.316	570.566	815.882	155.183	297.824	232.774	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	142.642	427.925	1141.133	2515.04	1659.19	1153.674	1426.416	570.566	375.416
	297.824	0	220.233	285.283	297.824	77.591	77.591	285.283	310.365	142.642	77.591
	155.183	0	77.591	0	0	0	0	77.591	0	0	0
	840.964										
1984	1	15	3	0	1	-1	-1	21.18	0	0	0
	0	0	152.652	76.326	129.21	287.883	287.883	287.883	46.863	299.261	58.905
	369.545	123.189	199.515	123.189	0	93.726	76.326	129.21	0	0	0
	0	76.326	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	311.325	411.735	458.598	493.418	376.251	140.588
	6.021	94.389	64.926	93.726	0	105.768	6.021	187.451	6.021	152.652	176.073
	46.863	6.021	58.905	0	0	0	0	93.726	0	58.905	0
	293.219										
1985	1	15	3	0	1	-1	-1	7.06	0	0	0
	0	0	0	0	48.931	97.861	391.445	391.445	244.653	146.792	342.514
	195.723	97.861	0	97.861	0	97.861	0	48.931	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	146.792	146.792	391.445	293.584	244.653
	146.792	244.653	244.653	146.792	97.861	0	0	0	48.931	97.861	97.861
	48.931	48.931	48.931	48.931	0	0	0	0	0	0	48.931
	97.861										
1987	1	15	3	0	1	-1	-1	84.72	0	0	0
	0	0	314.668	181.42	1672.042	2157.026	2323.814	2777.587	2166.543	1851.626	755.256
	1169.988	804.219	505.732	367.263	302.464	72.159	23.77	0	37.343	260.564	62.686
	166.382	0	0	0	23.77	0	0	0	0	42.346	0
	0	0	0	9.874	106.725	427.262	2379.18	2977.99	1680.528	2570.071	2146.587
	1060.484	326.843	199.689	275.267	252.504	257.835	410.78	174.627	336.861	231.434	214
	0	15.472	30.944	199.689	232.857	198.775	353.972	0	132.412	138.105	74.687
	1596.282										
1988	1	15	3	0	1	-1	-1	35.3	0	0	0
	7.962	31.846	39.808	56.96	88.819	214.853	485.45	523.221	664.417	374.519	231.878
	37.671	235.155	227.738	0	12.557	73.441	0	80.857	0	0	0
	0	80.857	80.857	0	0	0	11.556	0	11.556	12.557	0
	0	0	0	7.962	95.767	129.071	69.517	406.365	667.137	427.669	746.275
	312.735	84.997	246.711	46.225	37.671	73.441	0	73.441	24.113	235.155	80.857
	80.857	154.298	103.97	11.556	92.413	161.714	80.857	73.441	12.557	80.857	11.556
	792.499										
1989	1	15	3	0	1	-1	-1	91.78	0	0	0
	125.467	100.465	526.406	1444.355	2215.856	3493.773	2947.182	2161.451	1948.887	978.729	778.55
	362.258	246.616	290.12	0	51.073	0	214.229	0	0	0	0
	0	0	0	0	0	0	0	0	218.285	341.862	0
	0	25.093	54.045	173.713	881.338	2243.636	2521.382	3072.295	4354.315	2677.73	3225.23
	1728.132	953.597	496.604	102.329	384.357	471.094	573.24	92.095	273.182	0	92.794
	68.159	0	214.229	0	107.115	51.073	120.061	102.146	51.073	69.687	206.578
	1359.841										
1990	1	15	3	0	1	-1	-1	77.66	0	0	0
	37.596	0	822.504	838.17	1724.91	2403.423	2948.462	3715.324	2325.52	2222.534	750.774
	801.003	198.969	601.608	195.933	135.03	3.035	3.035	127.895	0	0	0
	0	0	3.035	0	211.824	0	0	0	0	0	0
	0	0	0	5.836	564.907	2546.672	2188.533	2037.928	2493.554	3198.335	3090.009
	1505.896	1066.52	1035.383	561.823	709.498	209.646	212.776	6.071	604.643	344.771	209.741
	0	225.316	3.035	6.071	97.434	97.434	3.035	212.776	3.035	30.461	3.035
	1128.254										
1991	1	15	3	0	1	-1	-1	7.06	0	0	0
	0	0	0	0	186.491	0	559.474	559.474	559.474	559.474	932.456
	372.982	0	0	0	186.491	0	186.491	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	186.491	559.474	372.982	0
	372.982	932.456	745.965	559.474	186.491	0	186.491	0	186.491	372.982	0
	186.491	0	186.491	0	0	0	0	0	0	0	0
	186.491										
1992	1	15	3	0	1	-1	-1	84.72	0	0	0
	0	385.145	1039.991	892.503	3116.253	1571.725	801.596	1796.922	1846.628	1865.441	1735.802
	2060.908	1863.535	1420.915	402.264	969.284	277.959	0	0	144.649	144.649	0
	0	0	0	0	0	0	0	0	14.574	0	0

	0	0	0	398.997	110.513	1936.558	2139.602	2865.718	2716.253	3138.851	1752.359
	451.253	570.138	913.504	1644.213	1101.756	1096.679	680.079	21.415	614.964	535.429	478.947
	0	0	0	144.649	334.297	0	4.838	340.404	215.706	15.04	0
	1211.333										
1993	1	15	3	0	1	-1	-1	32.19	0	0	0
	0	41.572	378.135	24.273	813.573	793.459	591.422	893.955	736.212	1284.448	227.523
	0	16.138	0	0	0	0	0	0	37.504	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	2.034	6.101	52.613	10.168	772.277	1878.367	881.002	835.084	743.937
	297.304	248.889	0	0	0	0	0	0	37.504	0	53.643
	0	37.504	0	0	0	0	37.504	0	16.138	0	0
	0										
1994	1	15	3	0	1	-1	-1	105.9	0	0	0
	11.793	303.052	815.389	1068.324	1207.547	2090.416	1244.078	1171.043	767.828	311.398	222.589
	488.298	204.705	101.889	34.691	49.007	49.007	0	18.71	20.141	155.749	0
	0	1.759	0	1.097	0	0	17.613	54.717	0	18.19	0
	0	0	25.065	376.347	785.208	821.024	1975.058	2407.59	1297.573	971.284	1156.39
	524.855	439.259	166.417	139.613	140.949	135.314	38.22	247.029	22.479	139.41	18.71
	0	0	41.041	139.41	0	0	139.41	113.371	157.023	6.869	0
	191.946										
1995	1	15	3	0	1	-1	-1	155.32	0	0	0
	6.813	89.151	158.557	404.822	651.775	564.748	672.1	820.07	429.091	294.382	144.893
	68.908	23.451	8.749	5.13	12.591	5.977	47.39	0	5.13	0	0
	0	0	0	0	0	0	0	0	8.117	0	0
	0	0	6.813	157.825	287.799	512.595	824.41	483.796	930.294	671.771	280.718
	110.676	116.835	66.458	71.22	8.632	10.369	12.591	9.948	0	0	25.387
	4.257	0	0	4.058	0	0	0	0	16.259	0	14.929
	32.492										
1996	1	15	3	0	1	-1	-1	98.84	0	0	0
	17.094	56.984	120.955	198.925	254.682	236.982	455.987	492.082	393.291	380.645	79.515
	31.367	140.331	11.698	37.42	8.188	0	3.155	3.511	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	20.65	66.958	207.306	264.271	452.88	328.607	397.931	485.39	339.48
	262.084	171.886	51.18	88.719	85.209	8.188	110.703	85.209	41.87	0	0
	0	0	0	43.338	0	33.682	10.477	0	0	0	8.188
	20.953										
1997	1	15	3	0	1	-1	-1	120.02	0	0	0
	42.501	87.323	114.824	273.283	543.503	496.606	809.017	779.741	824.275	724.531	596.595
	172.991	142.488	101.233	126.945	120.775	84.891	115.048	0	22.017	49.347	37.9
	0	0	0	34.598	0	0	0	0	0	0	0
	0	0	43.661	212.569	119.037	603.479	573.911	990.154	943.757	757.181	740.893
	439.659	581.648	260.589	109.79	45.842	184.521	64.877	66.234	76.954	43.669	14.749
	100.299	0	56.615	0	14.749	0	31.636	0	0	0	0
	195.584										
1998	1	15	3	0	1	-1	-1	112.96	0	0	0
	5.595	7.553	83.71	364.494	476.123	935.2	728.423	416.294	699.45	442.869	615.2
	271.347	118.811	52.603	159.584	113.465	33.113	77.443	0	11.608	0	22.757
	0	0	23.987	11.608	36.865	0	0	0	0	11.608	0
	0	0	17.469	54.187	204.535	190.023	854.959	843.092	861.502	717.876	457.856
	439.627	345.411	180.176	208.889	24.514	84.147	126.786	0	46.973	60.852	0
	42.687	0	23.987	48.831	0	36.865	0	0	0	0	0
	125.337										
1999	1	15	3	0	1	-1	-1	105.9	0	0	0
	9.957	55.355	32.538	100.256	146.397	233.871	320.371	302.713	256.557	357.168	217.04
	330.586	198.855	121.465	151.106	49.122	47.882	74.813	0	4.977	6.257	0
	17.417	0	0	0	0	0	0	0	0	0	0
	0	1.088	2.176	6.003	33.421	246.614	139.806	263.381	433.396	467.628	557.502
	335.087	243.625	287.164	74.749	249.033	59.834	3.37	73.904	46.671	70.862	0
	24.862	0	2.45	55.516	0	17.417	23.673	0	0	0	0
	2.527										
2000	1	15	3	0	1	-1	-1	36.64	0	0	0
	0	3.212	10.002	8.895	16.26	8.451	10.653	23.115	25.803	11.313	9.077
	6.821	2.596	6.821	2.596	0	2.596	0	0	0	0	0
	0.617	0	0	0	0	0	0	0	0	0	0
	0	0	4.344	13.603	8.833	23.59	26.293	15.972	23.526	23.964	0.617
	12.841	14.564	3.152	4.841	6.821	0	2.596	2.596	0	0	1.012
	0	0	0	0	0	0	0	0	0	0	0
	0.617										
2001	1	15	3	0	1	-1	-1	52.26	0	0	0
	1.248	1.248	5.963	24.416	28.733	30.514	21.519	53.55	27.944	27.583	30.326

	19.766	6.18	5.58	7.513	1.51	3.02	0.91	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	2.497	4.751	17.559	19.195	51.598	82	53.592	64.353	30.953
	52.942	17.13	14.945	14.92	1.51	1.117	5.438	4.67	5.438	0	1.117
	0	0	0	0	0	0	1.117	0	0	0	0
	0										
2002	1	15	3	0	1	-1	-1	105.56	0	0	0
	0	0	0	29.532	48.568	45.443	20.673	49.737	28.312	46.294	52.844
	55.333	37.873	43.055	32.171	18.309	14.675	4.186	6.038	9.875	4.079	3.96
	2.003	0	0	0	0	0	0	0	0.924	0	0
	0	0	0	0	13.388	29.46	77.625	59.585	52.653	78.294	75.888
	33.767	95.232	46.651	19.005	10.053	1.112	13.045	3.423	1.521	0	8.842
	0	1.112	0	0	0	0	0	1.112	0	0	0
	19.907										
2003	1	15	3	0	1	-1	-1	56.6	0	0	0
	0	3.134	8.169	4.121	24.11	18.518	10.287	14.354	13.282	11.597	5.459
	4.854	5.342	0	6.173	2.399	1.083	1.16	1.93	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	3.181	6.188	16.741	21.946	18.779	13.751	9.685
	6.313	7.843	10.364	3.971	3.561	5.72	3.235	0	3.774	0	0.367
	0	0	0	0	0	0	0	0	0	0	0
	0										
2004	1	15	3	0	1	-1	-1	126.79	0	0	11.803
	11.803	42.788	103.303	266.781	193.116	281.273	152.938	143.441	176.494	158.225	82.358
	78.557	55.982	226.019	55.06	26.307	29.505	18.967	35.721	13.685	22.038	4.805
	0	7.283	11.803	0	0	0	0	0	0	0	0
	0	0	0	0	82.353	190.135	341.613	317.556	183.337	170.26	122.757
	297.883	100.273	35.397	31.418	11.3	13.099	8.975	0	32.656	0	10.306
	5.035	11.803	10.081	0	0	0	0	0	4.431	5.153	0
	33.975										
2005	1	15	3	0	1	-1	-1	109.14	0	0	0
	0	1	2	9	68.769	76.644	46.785	27.986	47.013	22.6	37.75
	38.443	46.95	6	5.579	6.279	23.05	8.421	0	9.15	4	1
	5.75	3.4	6.5	0	0	1	0	1	1	2	0
	0	0	0	1	2	21.173	35.894	20.691	41.863	57.751	53.608
	13.2	28.171	18.05	37.7	16.05	9	31.85	21.35	21.05	0	2
	22.3	11.95	2	5.75	7.5	0	1	1	1	0	0
	16.1										
#	NWFSC	marginals	for	plotting	only	(n=8)					
2003	1	16	3	0	1	-1	-1	1	0	150163	105415
	44421	20998	138286	181101	101955	175809	66122	103737	113058	109231	59104
	24799	225693	29678	18580	38200	0	18580	0	4550	0	0
	6219	0	0	0	0	0	0	0	0	0	25953
	465269	100235	41035	14118	136456	85360	192767	169574	149943	92269	121925
	156335	40085	51706	11477	18580	0	18580	6449	0	11098	0
	0	0	0	0	0	0	0	0	0	0	0
	5386										
2004	1	16	3	0	1	-1	-1	1	0	21114	139832
	57855	444318	98801	405312	96495	100887	527272	499980	220213	82039	101123
	17664	0	0	182695	365390	211825	0	0	0	0	0
	0	0	0	0	0	0	0	182695	0	0	0
	29836	82388	97338	391308	268348	169261	188784	91638	486814	20455	80212
	56708	147016	197863	196494	0	40009	225734	194230	28474	182695	194230
	182695	28474	182695	0	0	0	0	28474	0	0	0
	937124										
2005	1	16	3	0	1	-1	-1	1	41714	8973	10332
	92988	32905	53569	422400	363473	902541	371373	250546	49562	166104	190637
	17568	9121	0	0	0	9282	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	23208
	32268	10332	85666	26292	51414	415440	555599	241721	270641	300602	320598
	41086	7811	99224	131802	8320	7394	9282	0	0	0	8577
	11022	0	0	0	0	0	0	0	0	0	0
	0										
2006	1	16	3	0	1	-1	-1	1	0	9256	25574
	20678	8553	244272	131364	621546	1472880	1678624	1197580	2793509	1419991	1773285
	2168153	1389562	1094602	1085872	1076454	0	0	0	1076454	15246	280330
	0	0	1076454	0	0	8888	0	0	0	0	0
	0	27411	23091	13254	71497	1473406	1932042	2308886	1241443	1312794	2078162
	1433184	2225261	1076454	314983	15246	4586145	0	1084258	304516	1076454	0

	0	9260	280330	1637114	0	0	0	0	0	0	0
	280330										
2007	1	16	3	0	1	-1	-1	1	0	8370	87042
	336111	179153	171800	76745	110547	161137	255588	167276	256920	208859	76332
	110964	39604	109837	60331	18050	18050	18050	0	11726	0	0
	0	18050	0	0	11726	0	0	0	0	0	0
	0	23425	362177	156663	193094	170504	79076	242172	444380	358216	369460
	167830	214471	79549	68196	92793	51230	44934	11726	36100	39611	0
	6868	7220	12246	0	0	0	0	0	0	11726	0
	0										
2008	1	16	3	0	1	-1	-1	1	192117	653199	8213
	114760	249498	218653	147833	433915	411620	335336	211323	255797	124179	66946
	70809	105461	30304	30603	89027	10201	65015	9902	0	8481	9238
	10201	0	0	0	0	0	0	10201	0	0	762897
	588381	0	14492	340879	252564	535976	340562	303539	177955	51183	133238
	59825	32877	7215	38471	0	0	8027	8288	0	10201	35268
	0	0	17325	25067	35268	0	0	0	0	25067	0
	58374										
2009	1	16	3	0	1	-1	-1	1	8511	59008	0
	0	71039	62790	169460	256883	116875	29286	23568	26028	21370	10295
	19602	20041	29739	9786	0	19444	17334	19444	0	8185	0
	0	0	0	0	0	0	0	0	0	0	0
	142131	25226	0	98317	151422	255526	403683	158055	110178	110982	58978
	30885	50304	17621	31019	25866	9788	22834	10295	9149	19077	0
	8024	0	0	0	0	0	0	0	0	0	0
	0										
2010	1	16	3	0	1	-1	-1	1	115738	0	134399
	0	19752	39504	173000	292926	116416	134220	334122	261584	434273	449552
	455894	555821	335437	221463	170771	121011	7794	122852	121993	116353	8426
	7794	0	0	0	0	0	0	0	0	0	169750
	44396	175624	0	30864	17988	224173	146091	208829	207614	367352	169185
	61183	258698	129227	7794	115319	139132	106405	220604	327641	0	106405
	16574	0	7534	0	0	0	0	0	8498	0	0
	16996										
#	Triennial	marginals	for	plotting	only	(n=6)					
1983	1	18	3	0	1	-1	-1	1	1789	27621	80600
	1059623	578322	328239	455316	310005	528206	407144	449496	221668	239010	325851
	340611	110404	63951	91723	47288	76521	63016	32924	35911	0	25245
	0	34643	17757	12483	5752	5285	5914	1882	0	17236	0
	28974	65062	1151279	623300	291965	254776	414736	421507	411595	318627	229723
	346672	348890	254518	123781	140138	125471	78397	66843	129371	84449	116694
	33654	52942	34438	51080	67770	58411	31775	12439	52663	43691	48611
	351654										
1989	1	18	3	0	1	-1	-1	1	0	0	14750
	9047	391794	5374	71823	240849	253224	174674	312362	216568	66085	40123
	119000	138201	19245	104940	15765	11239	0	11239	13040	0	0
	13040	0	0	0	0	0	0	15765	0	53141	0
	0	17937	0	456863	42011	186880	358492	97395	237381	321245	344866
	175432	146428	239875	63776	90733	0	219836	47245	0	0	0
	58086	0	0	27941	0	0	0	0	128119	12985	0
	33978										
1992	1	18	3	0	1	-1	-1	1	0	4220	5728
	151991	42311	76086	192645	200244	96084	38175	20818	15026	15986	14965
	6108	6537	2020	9137	6037	974	237	4300	0	0	0
	0	0	0	0	0	0	0	0	0	0	4220
	10234	16394	31408	75863	81925	147870	100347	36390	29768	16729	15134
	23985	23226	9475	13975	5204	1632	271	2158	8780	4947	16996
	815	24158	0	0	0	0	0	0	0	0	0
	0										
1995	1	18	3	0	1	-1	-1	1	0	0	0
	16624	98129	77798	115218	37344	52032	47063	95381	5527	48649	62711
	21805	29220	27184	6437	13595	28240	11667	14378	6437	0	0
	0	0	0	0	0	0	0	0	0	0	0
	0	4469	101537	132293	137491	90822	87870	91782	29427	107383	3989
	76203	115488	32880	23927	26678	23927	32675	37688	0	0	57027
	13267	73671	0	0	0	0	0	0	0	0	0
	0										
2001	1	18	3	0	1	-1	-1	1	0	3606	0
	141990	302895	433694	804794	432377	182530	282111	298648	170197	94137	38023
	65388	27718	29857	32156	7562	12413	2206	4390	0	0	0

0	0	0	0	0	0	0	0	0	0	0	0
3606	0	113833	154619	529211	636973	310154	365015	187195	167463	92678	
71492	41027	42252	31139	20996	17928	8929	4646	0	11013	12465	
9877	9877	16081	0	6098	4646	0	2653	0	0	0	
	17319										
2004	1	18	3	0	1	-1	1	0	4597	4040	
	0	12219	20380	69183	64844	57050	81643	55347	56950	29254	60550
	48432	10488	13147	0	16671	10599	6295	0	10376	0	6295
	0	0	0	0	0	0	0	0	0	0	
	4040	0	6603	7635	32011	68320	81561	95154	56375	83791	74036
	103490	48771	24302	48961	45334	39525	25374	19609	52600	11036	0
	21353	0	0	18025	0	0	0	0	0	3372	0
	14838										

0 # Total number of size-at-age observations  
 0 # Total number of environmental variables  
 0 # Total number of environmental observations  
 0 # No Weight frequency data  
 0 # No tagging data  
 0 # No morph composition data  
 999 # End file marker

## **14. Appendix C: SS Control file**

```

# Control file for 2009 canary assessment update
# updated to run in SSv3.20

# Morph setup
1      # Number of growth patterns
1      # N sub morphs within growth patterns

# Time block setup
13     # Number of time block designs for time varying parameters
1      # Blocks in design 1
1      # Blocks in design 2
1      # Blocks in design 3
1      # Blocks in design 4
2      # Blocks in design 5
2      # Blocks in design 6
2      # Blocks in design 7
2      # Blocks in design 8
3      # Blocks in design 9
3      # Blocks in design 10
3      # Blocks in design 11
3      # Blocks in design 12
2      # Blocks in design 13

1995 2010      # Block Design 1 Trip limits
2000 2010      # Block Design 2 footrope/overfished declaration
2002 2010      # Block Design 3 RCA
2005 2010      # Block Design 4 Flatfish trawl

1995 1999 2000 2010      # Block Design 5 trip limits + footrope
1995 2001 2002 2010      # Block Design 6 trip limits + RCA
2000 2001 2002 2010      # Block Design 7 footrope + RCA
2000 2004 2005 2010      # Block Design 8 footrope + flatfish trawl

2000 2001 2002 2004 2005 2010 # Block Design 9 footrope + RCA + flatfish trawl
1995 1999 2000 2001 2002 2010 # Block Design 10 trip limits + footrope + RCA
1995 1999 2000 2004 2005 2010 # Block Design 11 trip limits + footrope + flatfish trawl
1979 1994 1995 1999 2000 2010 # Block Design 12 roller gear + trip limits + footrope
1979 1999 2000 2010      # Block Design 13 roller gear + footrope/overfished declaration

# Mortality and growth specifications
0.5      # Fraction female at birth
1        # M setup: 0=single Par,1=N_breakpoints,2=Lorenzen,3=agespecific;_4=agespec_withseasinterpolate
2        # Number of M breakpoints
6 14    # Ages at M breakpoints
1        # Growth model: 1=VB with L1 and L2, 2=VB with A0 and Linf, 3=Richards, 4=Read vector of L@A
1        # Age for growth Lmin
80      # Age for growth Lmax
0.0      # SD constant added to LAA (0.1 mimics v1.xx for compatibility only)
0        # Variability about growth: 0=CV~f(LAA) [mimic v1.xx], 1=CV~f(A), 2=SD~f(LAA), 3=SD~f(A)
1        # maturity option: 1=length logistic, 2=age logistic, 3=read maturity at age for each growth pattern
2        # First age allowed to mature
1        # maturity option
0        # hermaphro
3        # mg parm offset option:
1        # mg parm adjust method 1=do V1.23 approach, 2=use logistic transform between bounds approach

# Mortality and growth parameters
# Lo   Hi   Init   Prior   Prior   Prior   Param   Env   Use   Dev   Dev   Dev
# bnd  bnd  block  block  mean   type   SD    phase  var   dev   minyr  maxyr  SD
# Females
0.04   0.08  0.06  0.06   0       50     -50    0     0     0     0     0.5
0       0       #M1_natM_young

```

0	0.9	0.45	0.4	-1	50	3	0	0	0	0	0.5
	0	0	#M1_natM_old_as_exponential_offset(rel_young)								
2	9	3.8	4	-1	50	2	0	0	0	0	0.5
	0	0	#M1_Lmin								
50	70	59.0	60	-1	50	2	0	0	0	0	0.5
	0	0	#M1_Lmax								
0.02	0.21	0.14	0.14	-1	50	2	0	0	0	0	0.5
	0	0	#M1_VBK								
0.02	0.21	0.14	0.15	-1	50	2	0	0	0	0	0.5
	0	0	#M1_CV-young								
-3	3	-1.3	-1.3	-1	50	2	0	0	0	0	0.5
	0	0	#M1_CV-old_as_exponential_offset(rel_young)								
# Males											
-3	3	0	0	0	50	-50	0	0	0	0	0.5
	0	0	#M2_natM_young_as_exponential_offset(rel_morph_1)								
-3	3	0	0	0	50	-50	0	0	0	0	0.5
	0	0	#M2_natM_old_as_exponential_offset(rel_young)								
-3	3	0	0	0	50	-50	0	0	0	0	0.5
	0	0	#M2_Lmin_as_exponential_offset								
-3	3	-0.12	0	-1	50	2	0	0	0	0	0.5
	0	0	#M2_Lmax_as_exponential_offset								
-3	3	0.24	0	-1	50	2	0	0	0	0	0.5
	0	0	#M2_VBK_as_exponential_offset								
-3	3	0.04	0	-1	50	2	0	0	0	0	0.5
	0	0	#M2_CV-young_as_exponential_offset(rel_CV-young_for_morph_1)								
-3	3	-1.3	0	-1	50	2	0	0	0	0	0.5
	0	0	#M2_CV-old_as_exponential_offset(rel_CV-young)								
# Weight-Length and maturity parameters (L in cm, W in kg)											
# Lo	Hi	Init	Prior	Prior	Prior	Param	Env	Use	Dev	Dev	Dev
	Block	block	block	mean	type	SD	phase	var	dev	minyr	maxyr
# bnd	bnd	bnd	value	switch							SD
# Females											
0	1	1.55E-05	1.55E-05	0	50	-50	0	0	0	0.5	0
	0	#Female wt-len-1									
2	4	3.03	3.03	0	50	-50	0	0	0	0	0.5
	0	#Female wt-len-2									
40	41	40.5	40.5	0	50	-50	0	0	0	0	0.5
	0	#Female mat-len-1									
-3	3	-0.25	-0.25	0	50	-50	0	0	0	0	0.5
	0	#Female mat-len-2									
-3	3	1.0	1.0	0	50	-50	0	0	0	0	0.5
	0	#Female eggs/gm intercept									
-1	1	0.0	0.0	0	50	-50	0	0	0	0	0.5
	0	#Female eggs/gm slope									
# Males											
0	1	1.55E-05	1.55E-05	0	50	-50	0	0	0	0.5	0
	0	#Female wt-len-1									
2	4	3.03	3.03	0	50	-50	0	0	0	0	0.5
	0	#Female wt-len-2									
# Distribute recruitment among growth pattern x area x season											
0	999	1	1	0	50	-50	0	0	0	0	0.5
	0	# GP 1									
0	999	1	1	0	50	-50	0	0	0	0	0.5
	0	# Area 1									
0	999	1	1	0	50	-50	0	0	0	0	0.5
	0	# Season 1									
# Cohort growth (K) deviation parameter											
-1	1	1	1	0	50	-50	0	0	1980	1983	0.5
	0	0									
# Seasonal effects on biology parameters (0=none)											
0	0	0	0	0	0	0					
# Spawner-recruit parameters											
6		# S-R function: 1=B-H w/flat top, 2=Ricker, 3=standard B-H, 4=no steepness or bias adjustment									
# Lo	Hi	Init	Prior	Prior	Prior	Param					
# bnd	bnd	bnd	value	mean	type	SD	phase				
7	11	8.5	8.5	-1	50	1		# Ln(R0)			
0.21	0.99	0.511	0.4	0	50	-6		# Steepness			

```

0      2      0.5      0.4      0      50      -50      # Sigma R
-5      5      0      0      0      50      -50      # Environmental link coefficient
-5      5      0      0      0      50      -50      # Initial equilibrium offset to virgin
0      2      0      1      0      50      -50      # Autocorrelation in rec devs
0 # index of environmental variable to be used
0 # env target parameter: 1=rec devs, 2=R0, 3=steepness
1 # rec dev type: 0=none, 1=devvector (zero-sum), 2=simple deviations (no sum constraint)

# Recruitment residuals
1960    # Start year recruitment residuals
2010    # End year recruitment residuals
1       # Phase

1 # Read 11 advanced recruitment options: 0=no, 1=yes
0      # first year for early rec devs
-4     # phase for early rec devs
5      # Phase for forecast recruit deviations
1      # Lambda for forecast recr devs before endyr+1
1959    #_last_yr_nobias_adj_in_MP
1960    # first year of full bias correction (linear ramp up from this year minus the plus-age to this year)
2010    # last year for full bias correction in_MP
2011    #_first_recent_yr_nobias_adj_in_MP
1.0    # max bias adjustment
0      # placeholder
-5     # Lower bound rec devs
5      # Upper bound rec devs
0 # read intitial values for rec devs

# Fishing mortality setup
0.2    # F ballpark
1999    # F ballpark year
1       # F method: 1=Pope's; 2=Instan. F; 3=Hybrid (recommended)
0.9    # max F or harvest rate, depends on F_Method

# Initial F setup by fishing fleet
# Lo   Hi   Init   Prior   P_type   SD   Phase
0      1      0      0.01   0      50      -50 # 1_CA_S_trwl
0      1      0      0.01   0      50      -50 # 2CA_N_trwl
0      1      0      0.01   0      50      -50 # 3OR_trwl
0      1      0      0.01   0      50      -50 # 4WA_trwl
0      1      0      0.01   0      50      -50 # 5CA_S_nontrwl
0      1      0      0.01   0      50      -50 # 6CA_N_nontrwl
0      1      0      0.01   0      50      -50 # 7WAOR_nontrwl
0      1      0      0.01   0      50      -50 # 8CA_S_rec
0      1      0      0.01   0      50      -50 # 9CA_N_rec
0      1      0      0.01   0      50      -50 # 10WAOR_rec
0      1      0      0.01   0      50      -50 # 11atseahake
0      1      0      0.01   0      50      -50 # 12_NWFSC/research

# Catchability (Q_setup)
#
#Den-dep env-var extra_se Q_type
0      0      0      0      #      1CA_S_trwl
0      0      0      0      #      2CA_N_trwl
0      0      0      0      #      3OR_trwl
0      0      0      0      #      4WA_trwl
0      0      0      0      #      5CA_S_nontrwl
0      0      0      0      #      6CA_N_nontrwl
0      0      0      0      #      7WAOR_nontrwl
0      0      0      0      #      8CA_S_rec
0      0      0      0      #      9CA_N_rec
0      0      0      0      #      10WAOR_rec
0      0      0      0      #      11_atseahake
0      0      0      0      #      12_NWFSC
0      0      0      0      #      13_Early_tri
0      0      0      0      #      14_pre_recruit
0      0      0      0      #      15_WAtrl_mirror
0      0      0      0      #      16_NWFSC_mirror
0      0      0      0      #      17_Late_tri
0      0      0      0      #      18_Tri_mirror

```

```

# Selectivity section
# Size-based setup
# A=Selex option: 1-24
# B=Do_retention: 0=no, 1=yes
# C=Male offset to female: 0=no, 1=yes, 2=Female offset to male
# D=Mirror selex (#)
# A B C D
24 0 2 0 # 1CA_S_trwl
24 0 2 0 # 2CA_N_trwl
24 0 2 0 # 3OR_trwl
24 0 2 0 # 4WA_trwl
24 0 2 0 # 5CA_S_nontrwl
24 0 2 0 # 6CA_N_nontrwl
24 0 2 0 # 7WAOR_nontrwl
24 0 2 0 # 8CA_S_rec
24 0 2 0 # 9CA_N_rec
24 0 2 0 # 10WAOR_rec
24 0 2 0 # 11atseahake
24 0 2 0 # 12_NWFSC/research
24 0 2 0 # 13_Early_triennial
32 0 0 0 # 14_pre_recruit
5 0 0 4 # 15WA_trwl_mirror
5 0 0 12 # 16_NWFSC_mirror
5 0 0 13 # 17_Late_triennial
5 0 0 13 # 18_triennial_mirror
# Age-based setup
10 0 0 0 # 1CA_S_trwl
10 0 0 0 # 2CA_N_trwl
10 0 0 0 # 3OR_trwl
10 0 0 0 # 4WA_trwl
10 0 0 0 # 5CA_S_nontrwl
10 0 0 0 # 6CA_N_nontrwl
10 0 0 0 # 7WAOR_nontrwl
10 0 0 0 # 8CA_S_rec
10 0 0 0 # 9CA_N_rec
10 0 0 0 # 10WAOR_rec
10 0 0 0 # 11atseahake
10 0 0 0 # 12_NWFSC/research
10 0 0 0 # 13_Early_triennial
10 0 0 0 # 14_pre_recruit
10 0 0 0 # 15WA_trwl_mirror
10 0 0 0 # 16_NWFSC_mirror
10 0 0 0 # 17_Late_triennial
10 0 0 0 # 18_triennial_mirror
# Selectivity and retention parameters
# Lo Hi Init Prior Prior Prior Param Env Use Dev Dev Dev
# bnd Block block value switch mean type SD phase var dev minyr maxyr SD
# 1CA_S_trwl double normal
20 60 40 50 -1 50 4 0 0 0 0 0 0.5
0 2 # PEAK
-9.0 4.0 -4 -4 0 50 -50 0 0 0 0 0 0.5
0 0 # TOP (logistic)
0.0 9.0 4.3 4.2 -1 50 5 0 0 0 0 0 0.5
0 2 # Asc WIDTH exp
0.0 9.0 2.5 2.6 -1 50 5 0 0 0 0 0 0.5
0 0 # Desc WIDTH exp
-9.0 5.0 -9.0 -9.0 0 50 -50 0 0 0 0 0 0.5
0 0 # INIT (logistic)
-5.0 5.0 -1.0 5 -1 50 5 0 0 0 0 0 0.5
0 2 # FINAL (logistic)
# Female offsets
10 60 40 50 0 50 -50 0 0 0 0 0 0.5
0 0 # female dogleg
-4 0 0 0 0 50 -50 0 0 0 0 0 0.5
0 0 # female offset at minage
-4 0 0 0 0 50 -6 0 0 0 0 0 0.5
0 0 # female offset at dogleg

```

-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at maxage								
# 2CA_N_trwl double normal											
20	60	43	50	-1	50	4	0	0	0	0	0.5
	0	0	# PEAK								
-9.0	4.0	-4	-4	0	50	-50	0	0	0	0	0.5
	0	0	# TOP (logistic)								
0.0	9.0	3.9	2.0	-1	50	5	0	0	0	0	0.5
	0	0	# Asc WIDTH exp								
0.0	9.0	2.7	2.4	-1	50	5	0	0	0	0	0.5
	0	0	# Desc WIDTH exp								
-9.0	5.0	-9.0	-9.0	0	50	-50	0	0	0	0	0.5
	0	0	# INIT (logistic)								
-5.0	5.0	2.0	5	-1	50	5	0	0	0	0	0.5
	0	0	# FINAL (logistic)								
# Female offsets											
10	60	45	50	0	50	-50	0	0	0	0	0.5
	0	0	# female dogleg								
-4	0	0	0	0	50	-50	0	0	0	0	0.5
	0	0	# female offset at minage								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at dogleg								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at maxage								
#fishery-3OR_trwl double normal											
20	60	50	50	-1	50	4	0	0	0	0	0.5
	12	2	# PEAK								
-9.0	4.0	-4	-4	0	50	-50	0	0	0	0	0.5
	0	0	# TOP (logistic)								
0.0	9.0	4.0	4.0	-1	50	5	0	0	0	0	0.5
	12	2	# Asc WIDTH exp								
0.0	9.0	4.0	4.0	0	50	-7	0	0	0	0	0.5
	0	0	# Desc WIDTH exp								
-9.0	5.0	-9.0	-9.0	0	50	-50	0	0	0	0	0.5
	0	0	# INIT (logistic)								
-5.0	12	1	5	-1	50	4	0	0	0	0	0.5
	12	2	# FINAL (logistic)								
# Female offsets											
10	60	50	44	0	50	-50	0	0	0	0	0.5
	0	0	# female dogleg								
-4	0	0	0	0	50	-50	0	0	0	0	0.5
	0	0	# female offset at minage								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at dogleg								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at maxage								
#fishery-4WA_trwl double normal											
20	60	50	50	-1	50	4	0	0	0	0	0.5
	13	2	# PEAK								
-4.0	4.0	-4	-4	0	50	-50	0	0	0	0	0.5
	0	0	# TOP (logistic)								
0.0	9.0	4.5	4.5	-1	50	5	0	0	0	0	0.5
	13	2	# Asc WIDTH exp								
0.0	9.0	4.4	4.4	-1	50	5	0	0	0	0	0.5
	0	0	# Desc WIDTH exp								
-9.0	5.0	-9.0	-9.0	0	50	-50	0	0	0	0	0.5
	0	0	# INIT (logistic)								
-5.0	5.0	-3.3	5	-1	50	5	0	0	0	0	0.5
	13	2	# FINAL (logistic)								
# Female offsets											
10	60	50	44	0	50	-50	0	0	0	0	0.5
	0	0	# female dogleg								
-4	0	0	0	0	50	-50	0	0	0	0	0.5
	0	0	# female offset at minage								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at dogleg								

-4	0	0	0	0	50	-6	0	0	0	0	0.5
# female offset at maxage											
20	60	34	50	-1	50	4	0	0	0	0	0.5
	2	2	# PEAK								
-4.0	4.0	-4	-4	0	50	-50	0	0	0	0	0.5
	0	0	# TOP (logistic)								
0.0	9.0	4.3	4.1	-1	50	5	0	0	0	0	0.5
	2	2	# Asc WIDTH exp								
0.0	9.0	4.3	4.3	-1	50	5	0	0	0	0	0.5
	0	0	# Desc WIDTH exp								
-9.0	5.0	-9.0	-9.0	0	50	-50	0	0	0	0	0.5
	0	0	# INIT (logistic)								
-5.0	5.0	-1.8	5	-1	50	5	0	0	0	0	0.5
	2	2	# FINAL (logistic)								
# Female offsets											
10	60	35	44	0	50	-50	0	0	0	0	0.5
	0	0	# female dogleg								
-4	0	0	0	0	50	-50	0	0	0	0	0.5
	0	0	# female offset at minage								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at dogleg								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at maxage								
#fishery-6CA_N_nontrwl double normal											
15	60	40	50	-1	50	4	0	0	0	0	0.5
	10	2	# PEAK								
-4.0	4.0	-4	-4	0	50	-50	0	0	0	0	0.5
	0	0	# TOP (logistic)								
0.0	9.0	4.7	4.2	-1	50	5	0	0	0	0	0.5
	10	2	# Asc WIDTH exp								
0.0	9.0	4.0	4.0	0	50	-7	0	0	0	0	0.5
	0	0	# Desc WIDTH exp								
-9.0	5.0	-9.0	-9.0	0	50	-50	0	0	0	0	0.5
	0	0	# INIT (logistic)								
-5.0	5.0	4.99	0.9	-1	50	-5	0	0	0	0	0.5
	10	2	# FINAL (logistic)								
# Female offsets											
10	60	40	44	0	50	-50	0	0	0	0	0.5
	0	0	# female dogleg								
-4	0	0	0	0	50	-50	0	0	0	0	0.5
	0	0	# female offset at minage								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at dogleg								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at maxage								
#fishery-7WAOR_nontrwl double normal											
15	60	49	50	-1	50	4	0	0	0	0	0.5
	7	2	# PEAK								
-4.0	4.0	-4	-4	0	50	-50	0	0	0	0	0.5
	0	0	# TOP (logistic)								
0.0	9.0	4.7	5.8	-1	50	5	0	0	0	0	0.5
	7	2	# Asc WIDTH exp								
0.0	9.0	4.0	4.0	0	50	-7	0	0	0	0	0.5
	0	0	# Desc WIDTH exp								
-9.0	5.0	-9.0	-9.0	0	50	-50	0	0	0	0	0.5
	0	0	# INIT (logistic)								
-5.0	5.0	4.0	5	-1	50	5	0	0	0	0	0.5
	7	2	# FINAL (logistic)								
# Female offsets											
10	60	53	44	0	50	-50	0	0	0	0	0.5
	0	0	# female dogleg								
-4	0	0	0	0	50	-50	0	0	0	0	0.5
	0	0	# female offset at minage								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at dogleg								

-4	0	0	0	0	50	-6	0	0	0	0	0.5
# female offset at maxage											
15	60	30	50	-1	50	4	0	0	0	0	0.5
	8	2	# PEAK								
-4.0	4.0	-4	-4	0	50	-50	0	0	0	0	0.5
	0	0	# TOP (logistic)								
0.0	9.0	3.9	4.0	-1	50	5	0	0	0	0	0.5
	8	2	# Asc WIDTH exp								
0.0	9.0	3.7	3.7	-1	50	5	0	0	0	0	0.5
	0	0	# Desc WIDTH exp								
-9.0	5.0	-9.0	-9.0	0	50	-50	0	0	0	0	0.5
	0	0	# INIT (logistic)								
-5.0	5.0	-3.5	5	-1	50	5	0	0	0	0	0.5
	8	2	# FINAL (logistic)								
# Female offsets											
10	60	30	44	0	50	-50	0	0	0	0	0.5
	0	0	# female dogleg								
-4	0	0	0	0	50	-50	0	0	0	0	0.5
	0	0	# female offset at minage								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at dogleg								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at maxage								
#fishery-9CA_N_rec double normal											
15	60	28	50	-1	50	4	0	0	0	0	0.5
	0	2	# PEAK								
-4.0	4.0	-4	-4	0	50	-50	0	0	0	0	0.5
	0	0	# TOP (logistic)								
0.0	9.0	3.1	3.1	-1	50	5	0	0	0	0	0.5
	0	2	# Asc WIDTH exp								
0.0	9.0	4.4	4.4	-1	50	5	0	0	0	0	0.5
	0	0	# Desc WIDTH exp								
-9.0	5.0	-9.0	-9.0	0	50	-50	0	0	0	0	0.5
	0	0	# INIT (logistic)								
-5.0	5.0	-2.3	5	-1	50	5	0	0	0	0	0.5
	0	2	# FINAL (logistic)								
# Female offsets											
10	60	28	44	0	50	-50	0	0	0	0	0.5
	0	0	# female dogleg								
-4	0	0	0	0	50	-50	0	0	0	0	0.5
	0	0	# female offset at minage								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at dogleg								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at maxage								
#fishery-10WAOR_rec double normal											
15	60	31	50	-1	50	4	0	0	0	0	0.5
	2	2	# PEAK								
-4.0	4.0	-4	-4	0	50	-50	0	0	0	0	0.5
	0	0	# TOP (logistic)								
0.0	9.0	3.2	3.2	-1	50	5	0	0	0	0	0.5
	2	2	# Asc WIDTH exp								
0.0	9.0	3.3	2.3	-1	50	5	0	0	0	0	0.5
	0	0	# Desc WIDTH exp								
-9.0	5.0	-9.0	-9.0	0	50	-50	0	0	0	0	0.5
	0	0	# INIT (logistic)								
-5.0	5.0	-2.4	5	-1	50	5	0	0	0	0	0.5
	2	2	# FINAL (logistic)								
# Female offsets											
10	60	31	50	0	50	-50	0	0	0	0	0.5
	0	0	# female dogleg								
-4	0	0	0	0	50	-50	0	0	0	0	0.5
	0	0	# female offset at minage								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at dogleg								

-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at maxage								
#fishery-11atseahake double normal											
15	60	48	50	-1	50	4	0	0	0	0	0.5
	0	0	# PEAK								
-4.0	4.0	-4	-4	0	50	-50	0	0	0	0	0.5
	0	0	# TOP (logistic)								
0.0	9.0	3.6	3.7	-1	50	5	0	0	0	0	0.5
	0	0	# Asc WIDTH exp								
0.0	9.0	4.0	4.0	0	50	-7	0	0	0	0	0.5
	0	0	# Desc WIDTH exp								
-9.0	5.0	-9.0	-9.0	0	50	-50	0	0	0	0	0.5
	0	0	# INIT (logistic)								
-5.0	5.0	4.0	5	-1	50	5	0	0	0	0	0.5
	0	0	# FINAL (logistic)								
# Female offsets											
10	60	48	50	0	50	-50	0	0	0	0	0.5
	0	0	# female dogleg								
-4	0	0	0	0	50	-50	0	0	0	0	0.5
	0	0	# female offset at minage								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at dogleg								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at maxage								
#survey-12_NWFSC double normal											
20	65	60	50	-1	50	4	0	0	0	0	0.5
	0	0	# PEAK value								
-4.0	4.0	-4.0	-4	-1	50	4	0	0	0	0	0.5
	0	0	# TOP logistic								
0.0	9.0	8.8	4.0	-1	50	4	0	0	0	0	0.5
	0	0	# WIDTH up exp								
0.0	9.0	4.0	4.0	0	50	-7	0	0	0	0	0.5
	0	0	# WIDTH dn exp								
-9.0	5.0	-8.0	-9.0	-1	50	4	0	0	0	0	0.5
	0	0	# INIT logistic								
-5.0	5.0	4.5	5	-1	50	4	0	0	0	0	0.5
	0	0	# FINAL (logistic)								
# Add female offsets											
10	60	55	50	0	50	-50	0	0	0	0	0.5
	0	0	# female dogleg								
-4	0	0	0	0	50	-50	0	0	0	0	0.5
	0	0	# female offset at minage								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at dogleg								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at maxage								
#survey-13_Early triennial double normal											
20	65	62	50	-1	50	4	0	0	0	0	0.5
	0	0	# PEAK value								
-4.0	4.0	-3.6	-4	-1	50	4	0	0	0	0	0.5
	0	0	# TOP logistic								
0.0	9.0	7.4	4.0	-1	50	4	0	0	0	0	0.5
	0	0	# WIDTH exp								
0.0	9.0	4.0	4.0	0	50	-7	0	0	0	0	0.5
	0	0	# WIDTH exp								
-9.0	5.0	-9.0	-9.0	0	50	-50	0	0	0	0	0.5
	0	0	# INIT logistic								
-5.0	5.0	4.5	5	-1	50	4	0	0	0	0	0.5
	0	0	# FINAL (logistic)								
# Female offsets											
10	60	55	50	0	50	-50	0	0	0	0	0.5
	0	0	# female dogleg								
-4	0	0	0	0	50	-50	0	0	0	0	0.5
	0	0	# female offset at minage								
-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at dogleg								

-4	0	0	0	0	50	-6	0	0	0	0	0.5
	0	0	# female offset at maxage								
### Mirrors, leave fixed ###											
#15_Wa trawl mirror for second age key											
-2	0	-1	0	0	50	-50	0	0	0	0	0.5
	0	0	# Min mirror bin								
-2	0	-1	0	0	50	-50	0	0	0	0	0.5
	0	0	# Max mirror bin								
#16_NWFSC mirror for marginal ages											
-2	0	-1	0	0	50	-50	0	0	0	0	0.5
	0	0	# Min mirror bin								
-2	0	-1	0	0	50	-50	0	0	0	0	0.5
	0	0	# Max mirror bin								
#17_Late_triennial											
-2	0	-1	0	0	50	-50	0	0	0	0	0.5
	0	0	# Min mirror bin								
-2	0	-1	0	0	50	-50	0	0	0	0	0.5
	0	0	# Max mirror bin								
#17_triennial mirror for marginal ages											
-2	0	-1	0	0	50	-50	0	0	0	0	0.5
	0	0	# Min mirror bin								
-2	0	-1	0	0	50	-50	0	0	0	0	0.5
	0	0	# Max mirror bin								
#####											

1 # Selex block setup: 0=Read one line apply all, 1=read one line each parameter

# Lo	Hi	Init	Prior	P_type	SD	Phase
20	60	46	50	-1	50	4 # OR trawl peak 1979-1994
20	60	46	50	-1	50	4 # OR trawl peak 1995-1999
20	60	41	50	-1	50	4 # OR trawl peak 2000-2006
0.0	9.0	4.0	4.0	-1	50	5 # OR trawl ascending width 1979-1994
0.0	9.0	4.0	4.0	-1	50	5 # OR trawl ascending width 1995-1999
0.0	9.0	3.7	3.9	-1	50	5 # OR trawl ascending width 2000-2006
-5.0	12.0	0.2	5	-1	50	5 # OR trawl final 1979-1994
-5.0	9.0	0.2	5	-1	50	5 # OR trawl final 1995-1999
-5.0	9.0	0.15	5	-1	50	5 # OR trawl final 2000-2006
20	60	41	50	-1	50	4 # WA trawl peak 1979-1999
20	60	41	50	-1	50	4 # WA trawl peak 2000-2006
0.0	9.0	3.6	4.6	-1	50	5 # WA trawl ascending width 1979-1999
0.0	9.0	3.6	4.6	-1	50	5 # WA trawl ascending width 2000-2006
-5.0	5.0	4.5	5	-1	50	5 # WA trawl final 1979-1999
-5.0	5.0	4.5	5	-1	50	5 # WA trawl final 2000-2006
20	60	24	50	-1	50	4 # S CA nontrawl peak 2000-2006
0.0	9.0	1.6	1.3	-1	50	5 # S CA nontrawl ascending width 2000-2006
-5.0	5.0	-4.5	5	-1	50	5 # S CA nontrawl final 2000-2006
20	60	33	50	-1	50	4 # N CA nontrawl peak 1995-1999
20	60	41	50	-1	50	4 # N CA nontrawl peak 2000-2001
20	60	33	50	-1	50	4 # N CA nontrawl peak 2002-2006
0.0	9.0	3.5	4.2	-1	50	-4 # N CA nontrawl ascending width 1995-1999
0.0	9.0	4.8	4.2	-1	50	5 # N CA nontrawl ascending width 2000-2001
0.0	9.0	3.9	4.2	-1	50	5 # N CA nontrawl ascending width 2002-2006
-5.0	5.0	0.1	5	-1	50	5 # N CA nontrawl final 1995-1999
-5.0	5.0	-0.3	5	-1	50	5 # N CA nontrawl final 2000-2001
-5.0	5.0	-2.9	5	-1	50	5 # N CA nontrawl final 2002-2006
15	60	33	50	-1	50	4 # OR/WA nontrawl peak 2000-2001
15	60	58	50	-1	50	4 # OR/WA nontrawl peak 2002-2006
0.0	9.0	2.9	5.8	-1	50	5 # OR/WA nontrawl ascending width 2000-2001
0.0	9.0	5.2	5.8	-1	50	5 # OR/WA nontrawl ascending width 2002-2006
-5.0	5.0	-1.6	5	-1	50	5 # OR/WA nontrawl final 2000-2001
-5.0	5.0	4.8	5	-1	50	5 # OR/WA nontrawl final 2002-2006
20	60	31	50	-1	50	4 # S CA rec peak 2000-2001
20	60	30	50	-1	50	4 # S CA rec peak 2002-2006
0.0	9.0	4.0	4.0	-1	50	5 # S CA rec ascending width 2000-2001
0.0	9.0	3.1	4.0	-1	50	5 # S CA rec ascending width 2002-2006

```

-5.0      5.0      -4.5      5       -1      50      5 # S CA rec final 2000-2001
-5.0      5.0      -4.8      5       -1      50      5 # S CA rec final 2002-2006

20       60       30       50      -1      50      4 # OR/WA rec peak 2000-2006
0.0       9.0      3.2       3.2     -1      50      5 # OR/WA rec ascending width 2000-2006
-5.0      5.0      -3.6      5       -1      50      5 # OR/WA rec final 2000-2006

1 # Selex parm adjust method 1=do V1.23 approach, 2=use new logistic approach
0 # Tagging flag: 0=none,1=read parameters for tagging

### Likelihood related quantities ###
# variance/sample size adjustment by fleet
1 # Do variance adjustments
#1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 #
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 # constant added to survey CV # Changed
13 from 0.02, 12 from 0.09, and 13 from 0.0 - all to 0.50
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 # constant added to discard SD
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 # constant added to body weight SD
0.90 1.00 1.00      1.00 0.82 1.00      1.00 0.88 0.82 0.90 0.73 1.00 1.00 1.00 1.00 1.00 1.00 1.00 # multiplicative scalar for
length comps
1.00 0.98 1.00      1.00 1.00 1.00      1.00 1.00 1.00 1.00 0.36 1.00 1.00 1.00 1.00 0.90 1.00 # multiplicative scalar for
agecomps
1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 # multiplicative scalar for
length at age obs

# removed for SSv3.20: 30      # DF For discard T-distribution (discard_like)
# removed for SSv3.20: 30      # DF For meanbodywt T-distribution (DF_for_meanbodywt_like)
1           # Max number of lambda phases: read this number of values for each component below
1           # SD offset (CPUE, discard, mean body weight, recruitment devs): 0=omit log(s) term, 1=include

16 # N changes to default Lambdas = 1.0
# Component codes:
# 1=survey
# 2=discard
# 3=mean body weight
# 4=length frequency
# 5=age frequency
# 6=Weight frequency
# 7=size at age
# 8=catch
# 9=initial equilibrium catch
# 10=rec devs
# 11=parameter priors
# 12=parameter deviations
# 13=Crash penalty
# 14=Morph composition
# 15=Tag composition
# 16=Tag return
# Component fleet/survey phase value wtfreq_method
4 1 1 0.5 1 # Len data half fleet 1
4 2 1 0.5 1 # Len data half fleet 2
4 3 1 0.5 1 # Len data half fleet 3
4 4 1 0.5 1 # Len data half fleet 4
4 7 1 0.5 1 # Len data half fleet 7
4 11 1 0.5 1 # Len data half fleet 11
5 1 1 0.5 1 # Age data half fleet 1
5 2 1 0.5 1 # Age data half fleet 2
5 3 1 0.5 1 # Age data half fleet 3
5 4 1 0.5 1 # Age data half fleet 4
5 7 1 0.5 1 # Age data half fleet 7
5 11 1 0.5 1 # Age data half fleet 11
5 15 1 0.5 1 # Age data half fleet 15
5 11 1 0.5 1 # Age data half fleet 11
5 16 1 0 1 # Ghost age data zero fleet 16 NWFSC mirror
5 18 1 0 1 # Ghost age data zero fleet 18 Triennial mirror

0 # extra SD

999 # end file marker

```

## **15. Appendix D: SS Starter file**

```
# 2009 Canary update starter file

Canary_data.SS          # Data file
Canary_control.SS        # Control file

0      # Read initial values from .par file: 0=no,1=yes
1      # DOS display detail: 0,1,2
2      # Report file detail: 0,1,2
0      # Detailed checkup.sso file (0,1)
0      # Write parameter iteration trace file during minimization
0      # Write cumulative report: 0=skip,1=short,2=full
0      # Include prior likelihood for non-estimated parameters
0      # Use Soft Boundaries to aid convergence (0,1) (recommended)
0      # N bootstrap datafiles to create
25     # Last phase for estimation
1      # MCMC burn-in
1      # MCMC thinning interval
0      # Jitter initial parameter values by this fraction
-1     # Min year for spbio sd_report (neg val = styr-2, virgin state)
-2     # Max year for spbio sd_report (-1=endyr+1, -2=entire forecast)
0      # N individual SD years
0.0001 # Ending convergence criteria
0      # Retrospective year relative to end year
5      # Min age for summary biomass
1      # Depletion basis: denom is: 0=skip; 1=rel X*B0; 2=rel X*Bmsy; 3=rel X*B_styr
1.0    # Fraction (X) for Depletion denominator (e.g. 0.4)
1      # (1-SPR)_reporting: 0=skip; 1=rel(1-SPR); 2=rel(1-SPR_MSY); 3=rel(1-SPR_Btarget); 4=notrel
1      # F_std reporting: 0=skip; 1=exploit(Bio); 2=exploit(Num); 3=sum(frates)
0      # F_report_basis: 0=raw; 1=rel Fspr; 2=rel Fmsy ; 3=rel Fbtgt

999 # end of file marker
```

## **16. Appendix E: SS Forecast file**

```

1      # Benchmarks: 0=skip; 1=calc F_spr,F_btgt,F_msy
2      # MSY: 1=set to F(SPR); 2=calc F(MSY); 3=set to F(Btgt); 4=set to F(endyr)
0.5    # SPR target (e.g. 0.40)
0.4    # Biomass target (e.g. 0.40)
# Enter either: actual year, -999 for styr, 0 for endyr, neg number for rel. endyr
0 0 0 0 0 # Bmark_years: beg_bio end_bio beg_selex end_selex beg_alloc end_alloc
2      # Bmark_relf_Basis: 1 = use year range; 2 = set relF same as forecast below
1      # Forecast: 0=none; 1=F(SPR); 2=F(MSY) 3=F(Btgt); 4=Ave F (use first-last alloc yrs); 5=input annual F
12     # N forecast years
1.0    # F scalar (only used for Do_Forecast==5)
# Enter either: actual year, -999 for styr, 0 for endyr, neg number for rel. endyr
0 0 0 0 # Fcast_years: beg_selex end_selex beg_alloc end_alloc
1      # Control rule method (1=catch=f(SSB) west coast; 2=F=f(SSB) )
0.02   # Control rule Biomass level for constant F (as frac of Bzero, e.g. 0.40)
0.01   # Control rule Biomass level for no F (as frac of Bzero, e.g. 0.10)
1.0    # Control rule target as fraction of Flimit (e.g. 0.75)
3      # N forecast loops (1-3) (fixed at 3 for now)
3      # First forecast loop with stochastic recruitment (fixed at 3 for now)
-1     # Forecast loop control #3 (reserved)
0      # Forecast loop control #4 (reserved for future bells&whistles)
0      # Forecast loop control #5 (reserved for future bells&whistles)
2013   # FirstYear for caps and allocations (should be after any fixed inputs)
0.0    # stddev of log(realized catch/target catch) in forecast
0      # Do West Coast gfish rebuild output (0/1)
1999   # Rebuilder: first year catch could have been set to zero (Ydecl)(-1 to set to 1999)
2002   # Rebuilder: year for current age structure (Yinit) (-1 to set to endyear+1)
1      # fleet relative F: 1=use first-last alloc year; 2=read seas(row) x fleet(col) below
2      # basis for fcast catch tuning and for fcast catch caps and allocation (2=deadbio; 3=retainbio; 5=deadnum; 6=retainnum)
-1 -1 -1 -1 -1 -1 -1 -1 -1 # max totalcatch by fleet (-1 to have no max)
-1     # max totalcatch by area (-1 to have no max)
0 0 0 0 0 0 0 0 0 0 0 0      # fleet assignment to allocation group (enter group ID# for each fleet, 0 for not included in an alloc group)
# assign fleets to groups
# allocation fraction for each of: 2 allocation groups
24 # Number of forecast catch levels to input (else calc catch from forecast F)
2 # basis for input Fcast catch: 2=dead catch; 3=retained catch; 99=input Hrate(F) (units are from fleetunits; note new codes in SSV3.20)
2011   1      1      1.7534
2011   1      2      4.1887
2011   1      3      16.9440
2011   1      4      10.8621
2011   1      5      0.0185
2011   1      6      0.0170
2011   1      7      11.2835
2011   1      8      8.1870
2011   1      9      17.7460
2011   1      10     17.4654
2011   1      11     10.2407
2011   1      12     3.2937
2012   1      1      1.8393
2012   1      2      4.3941
2012   1      3      17.7746
2012   1      4      11.3945
2012   1      5      0.0194
2012   1      6      0.0179
2012   1      7      11.8367
2012   1      8      8.5884
2012   1      9      18.6159
2012   1      10     18.3215
2012   1      11     10.7427
2012   1      12     3.4551

999 # verify end of input

```